

FINAL ENVIRONMENTAL ASSESSMENT

Tar Creek Superfund Site Demolition of Structures and Associated Activities in Picher, Cardin, and Hockerville, Ottawa County, Oklahoma



**US Army Corps of Engineers
Tulsa District**

May 2007

**Final
Environmental Assessment for
Tar Creek Superfund Site
Demolition of Structures and Associated Activities in
Picher, Cardin, and Hockerville, Ottawa County, Oklahoma**

Prepared by:

**Oklahoma Department of Environmental Quality
Land Protection Division
Tar Creek Section**



Prepared for:

**U.S. Army Corps of Engineers
Southwest Division
Tulsa District**



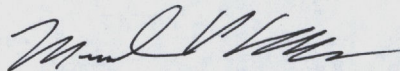
May 2007

FINDING OF NO SIGNIFICANT IMPACT

In accordance with the National Environmental Policy Act of 1969, including guidelines in 33 Code of Federal Regulations, Part 230, the Tulsa District has assessed the environmental impacts of a transfer of Federal funds to the Oklahoma Department of Environmental Quality (DEQ) for tasks identified to address lead exposure and other environmental problems related to historical mining activities in Ottawa County, Oklahoma. The Corps of Engineers (USACE) has been given the authority under Section 111, Energy and Water Development Appropriations Act of 2004 (PL 108-137) to fund demolition of structures (homes, businesses, and public use facilities), necessary road and utility relocations, and NEPA compliance documentation. The proposed activities will occur within the Tar Creek Relocation Zone in the communities of Picher, Cardin, and Hockerville, Ottawa County, Oklahoma. Structures will be demolished to decrease the health risks and liability associated with empty homes, businesses, and public facilities in the area. Best management practices will be employed during demolition to protect the surrounding environment and remaining citizens in the area. All structures will be inspected and mitigated where necessary for lead based paint and asbestos prior to demolition. Demolition activities may include: removal and disposal of all construction and demolition debris, septic systems closure, utilities relocation, grading of site to allow for appropriate drainage, and final restoration of disturbed area. As a means of avoiding potential impacts to the American burying beetle (*Nicrophorus americanus*), a Federally-listed endangered species, standardized evaluation, survey and other techniques prescribed by the U.S. Fish and Wildlife Service will be employed by the DEQ and will accompany all activities involving excavation or soil disturbance. The enclosed environmental assessment indicates the above activities would have no significant adverse affects on the natural or human environment. Therefore, an environmental impact statement will not be prepared.

14 MAY 07

Date



Miroslav P. Kurka
Colonel, U.S. Army
District Engineer

Enclosure
Environmental Assessment

ENVIRONMENTAL ASSESSMENT ORGANIZATION

This Environmental Assessment (EA) evaluates the effects of activities associated with demolishing homes and businesses, and removing the associated debris in the Relocation Assistance Zone in the Tar Creek Superfund Site, Ottawa County, Oklahoma.

- SECTION 1* *AUTHORITY, PURPOSE, AND SCOPE* provides the authority for the proposed action, summarizes the project purpose, provides relevant background information, and describes the scope of the EA.
- SECTION 2* *ALTERNATIVES* examines alternatives for implementing the proposed action
- SECTION 3* *PROPOSED ACTION* describes the recommended action.
- SECTION 4* *AFFECTED ENVIRONMENT* describes the existing environmental and socioeconomic setting.
- SECTION 5* *ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION* identifies the potential environmental and socioeconomic effects of implementing the proposed action and alternatives.
- SECTION 6* *RESTORATION PLAN* summarizes mitigation actions required for the proposed alternative.
- SECTION 7* *FEDERAL, STATE, AND LOCAL AGENCY COORDINATION* provides a listing of individuals and agencies.
- SECTION 8* *REFERENCES* provides bibliographical information for cited sources.
- SECTION 9* *APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS* provides a listing of environmental protection statutes and other environmental requirements.
- SECTION 10* *LIST OF PREPARERS* identifies persons who prepared the document and their areas of expertise.
- APPENDICIES* *A* *Coordination*
 B *Relocation Assistance Zone Map*
 C *Cultural Resources: Programmatic Agreement*
 D *American Burying Beetle Protocol*
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- E Section 404 Information and Correspondence

**Final
Environmental Assessment (EA) for
Tar Creek Superfund Site
Demolition of Structures and Associated Activities in
Picher, Cardin, and Hockerville, Ottawa County, Oklahoma**

SECTION 1.0 AUTHORITY, PURPOSE, AND SCOPE

This project was developed under authority of Section 111 of the Energy and Water Development Appropriates Act of 2004 (Public Law 108-137). The Corps of Engineers has been given authority and funding under this Act to implement demonstration projects determined by the Secretary of the Army to be necessary to address lead exposure and other environmental problems related to historical mining activities in Ottawa County, Oklahoma. This project will involve demolition of structures (homes, businesses, and public use facilities), necessary road and utility relocations, and NEPA compliance documentation on a reimbursement basis. The activities will occur within the blue boundary shown in Appendix B. Federal funds will be transferred to the Oklahoma Department of Environmental Quality (DEQ) on a reimbursable basis for these activities.

The National Environmental Policy Act (NEPA) of 1969 (Public Law 91-190) requires all Federal agencies to address the environmental impacts of any major Federal action on the natural and human environment. Guidance for complying with NEPA is contained in Title 40 of the Code of Federal Regulations (CFR), Parts 1500 through 1508, and the U.S. Army Corps of Engineers NEPA guidelines at 33 CFR Part 230. The EA was also prepared in accordance with the USACE Engineering Regulation (ER) 200-2-2, *Procedures for Implementing NEPA*. The intent of NEPA is to ensure that applicable environmental information is made available to public officials and citizens regarding major actions undertaken by Federal agencies. The purpose of this EA is to evaluate the environmental impacts and consequences of demolishing homes, businesses, and public use structures; necessary road and utility relocations; and disposing of construction debris.

SECTION 2.0 ALTERNATIVES

Alternatives include a No Action plan and a Proposed Action plan. The No Action plan would retain existing conditions and Federal funds under Section 111 would not be provided for activities described in this assessment. This project will involve demolition of structures (homes, businesses, and public use facilities), necessary road and utility relocations, and NEPA compliance documentation.

2.1 No Action Alternative

The No Action plan would retain existing conditions and Federal funds under Section 111 would not be provided for activities described in this assessment. Project activities would not be

conducted using Section 111 funds if such funds are not made available. However, given the overall level of effort at the Tar Creek Site, it is probable that such activities would be conducted using an alternate source of funding. The Council on Environmental Quality (CEQ) regulations implementing the provisions of NEPA require Federal agencies to consider a "no action" alternative. These regulations define the "no action" alternative as the continuation of existing conditions and their effects on the environment, without implementation of, or in lieu of, a proposed action. This alternative represents the existing condition and serves as the baseline against which to compare the effects of the proposed alternative. The no action alternative would retain the existing condition and would not result in any project-related environmental impacts. The negative health and environmental effects of abandoned structures would remain including unsafe structures, residual fine and coarse mine dust, and waste construction debris. The site is hazardous and health and safety would continue to be of concern including the potential to exposure of lead dust.

2.2 Action Alternative

Only one alternative to the No Action Plan was considered and proposed under this project. This project will cover demolition of structures (homes, businesses, and public use facilities), necessary road and utility relocations, and NEPA compliance documentation. Federal funds under Section 111 would be made available to DEQ on a reimbursable basis for these activities.

SECTION 3.0 PROPOSED ACTION

This project will involve demolition of approximately 695 structures (homes, businesses, and public use facilities), necessary road and utility relocations, and NEPA compliance documentation; work will be contracted by the Lead Impacted Communities Relocation Assistance (LICRA) trust in coordination with the DEQ with funds provided by USACE on a reimbursement basis. The activities will occur within the blue boundary shown in Appendix B. Structures will be demolished to decrease the liability associated with empty homes, businesses, and public facilities in the area. During demolition best management practices will be employed to protect the surrounding environment and remaining citizens in the area. All structures will be inspected for lead based paint and asbestos prior to demolition. Mitigation of any asbestos or lead hazards will be completed prior to demolition. Demolition activities may include: removal and disposal of all construction and demolition debris, septic systems closure, utilities relocation, grading of each site to allow for appropriate drainage, and final restoration of the disturbed areas. Work will be accomplished according to all local, State, and Federal regulations. Adequate and appropriate safety measures will be a major consideration during all phases of the project.

During the demolition phase of the project:

- Best Management Practices will be followed to ensure that any activity taken in close proximity to waters of the United States will be protected from incidental pollution from demolition debris or runoff.

- Actions will be taken to avoid take of species protected under the Endangered Species Act.
- Demolition debris will be disposed of in a manner consistent with State of Oklahoma regulations.
- Debris will go to a licensed sanitary landfill and copies of dump receipts will be provided to the owner to document proper disposal.
- No major road relocations will occur that span streams in the area.

Fugitive dusts contributed from the site during demolition activities and after demolition is complete shall not exceed the EPA national primary and secondary ambient air quality standards for PM 10 and particulate matter and lead. The contractor will follow a fugitive dust control plan and provide for self monitoring of fugitive dusts during the demolition phase of the project.

As a means of avoiding adverse impacts to the American burying beetle (*Nicrophorus americanus*) (ABB), a Federally-listed endangered species, standardized evaluation, survey, and other techniques prescribed by the U.S. Fish and Wildlife Service (USFWS) will be employed by the DEQ and will accompany all activities involving excavation or soil disturbance. Accordingly, use of established protocol (Appendix D) and activities for ABB protection to be employed by the LICRA Trust in coordination with the DEQ are included as a component of the proposed action.

SECTION 4.0 AFFECTED ENVIRONMENT

The project area is located on approximately 20 square miles of land that includes the City of Picher, Town of Cardin, and Town of Hockerville, Oklahoma (see Appendix B for map). The project area is within the 40 square mile Tar Creek site which encompasses the Oklahoma portion of the Tri-State Mining District of northeastern Oklahoma, southeastern Kansas, and southwestern Missouri (EPA, 2005).

Ottawa County has a temperate, continental climate characteristic of the southern prairie plains where they merge with the southwestern extension of the Ozark Plateau (USDA, 1964). The elevation in the Picher area is around 800 feet National Geodetic Vertical Datum (Luza, 1986).

Changes between the seasons are gradual, but the characteristics of the seasons are fairly well defined. The winter season ranges from cold to moderate; there are many sunny days between storms. Snow rarely covers the ground for more than 3 or 4 days at a time. Spring is the season when the weather is most variable and when the largest amount of rainfall of high intensity occurs. Summers are generally hot, but the nights are cool. In the fall there are long periods of pleasant days interspersed with spells of moderate to heavy rains. Tornadoes are infrequent but can occur in the area (USDA, 1964).

The average annual temperature is 57.3 ° F. Temperatures range on the average from 33 ° in January to 79.4 ° in July. The average annual precipitation is 44.6 inches. About 31 percent of the precipitation comes in spring; 29 percent in summer; 26 percent in fall; and 14 percent in winter. Winds are generally from the south, but in midwinter northerly winds predominate. The average annual snowfall is about 12 inches and covers the ground with at least two inches, an average of 13 days per year (USDA, 1964).

4.1 Social and Economic Conditions

Lead and zinc mining came to northeastern Oklahoma near Peoria, Ottawa County, in 1891 (Luza, 1986). At one time the Tri-State Mining District, which includes the Picher Mining Field, was the leading United States producer of lead and zinc, supplying nearly 27 percent of the nations lead and zinc products. During the peak mining years of 1907 through 1946, almost two million tons of lead and zinc were mined in the area at a value of more than \$202 million. By the time the last mining company closed in 1970, the Picher Mining Field had produced 1.7 million tons of lead and 8.8 million tons of zinc (Keating, 2000).

What once brought economic prosperity to the far northeastern corner of Oklahoma soon led to a legacy of human health and environmental calamity. The mining and milling of lead and zinc ore left approximately 300 miles of underground tunnels, 165 million tons of tailings (chat), over 1,320 mine shafts, and thousands of drill holes in the Oklahoma portion of the Tri-State Mining District alone. Tangible natural resource threats were first realized in 1979 when metals-laden mine water began discharging to surface streams in the Tar Creek watershed. The 40 square-mile site was added to the first National Priorities List when Congress created the Superfund program in 1983, and remediation efforts followed primarily to address the surface water and groundwater (Keating, 2000).

U.S. Census Bureau data from the 2000 Census indicates that an estimated 1,640 persons live in Picher, Oklahoma, and an estimated 33,194 persons live in Ottawa County, Oklahoma. The racial makeup of the City of Picher is 77.13% Caucasian, 13.78% Native American, 1.4% Hispanic, 0.18% Pacific Islander, 0.12% Asian, and 8.78% from mixed races. The racial makeup of Ottawa County is 74.1% Caucasian, 16.5% Native American, 3.2% Hispanic, 0.6% African American, 0.3% Asian, 0.1% Pacific Islander, 1.5% from other races, and 3.8% from two or more races (U.S. Census, 2001).

According to the 2000 Census approximately 616 people are in the labor force in Picher and 15,110 people in Ottawa County. Almost half the workforce of Picher is employed in either the manufacturing industry or in the educational, health, and social services industry. An additional 20.9% of the workforce is employed in the retail trade industry and the construction industry. In Ottawa County persons working in the educational, health, and social services make up 23.9% of the workforce. An additional 17.7% of the workforce is employed in the manufacturing industry while arts, entertainment, recreation, accommodation, food services and retail trade make up 20.8% (U.S. Census, 2001).

The median household income in the 2000 Census was \$19,722 for Picher, and \$27,507 for Ottawa County. The State of Oklahoma median household income for that year was \$33,400. The per capita income for Picher was \$10,938; for Ottawa County was \$14,478; and for the State of Oklahoma was \$17,646 (U.S. Census, 2001).

4.2 Executive Order 12898

Executive Order 12898 requires each Federal agency to make environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

Under NEPA, the identification of a disproportionately high and adverse human health or environmental effect on a low-income population, minority population, or Indian tribe does not preclude a proposed agency action from going forward, nor does it necessarily compel a conclusion that a proposed action is environmentally unsatisfactory. Rather, the identification of such an effect serves to heighten agency attention to alternatives (including alternative sites), mitigation strategies, monitoring needs, and preferences expressed by the affected community or population.

Low-income populations in an affected area are identified with the annual statistical poverty thresholds from the Bureau of the Census Reports on Income and Poverty. In identifying low-income populations, agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions of environmental exposure or effect.

Minorities are comprised of individual(s) who are members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic.

Minority populations are identified where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. In identifying minority communities, agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a geographically dispersed/transient set of individuals (such as migrant workers or Native American), where either type of group experiences common conditions of environmental exposure or effect. The selection of the appropriate unit of geographic analysis may be a governing body's jurisdiction, a neighborhood, census tract, or other similar unit that is to be chosen so as to not artificially dilute or inflate the affected minority population. A minority population also exists if there is more than one minority group present and the minority percentage, as calculated by aggregating all minority persons, meets one of the above-stated thresholds.

When determining whether environmental effects are disproportionately high and adverse, agencies are to consider the following three factors to the extent practicable: (a) whether there is or will be an impact on the natural or physical environment that significantly and adversely affects a minority population, low-income population, or Indian tribe. Such effects may include ecological, cultural, human health, economic, or social impacts on minority communities, low-income communities, or Indian tribes when those impacts are interrelated to impacts on the natural or physical environment; and (b) whether environmental effects are significant or may have an adverse impact on minority populations, low income populations, or Indian tribes that appreciably exceeds or is likely to appreciably exceed those on the general population or other appropriate comparison group; and (c) whether the environmental effects occur or would occur in a minority population, low-income population, or Indian tribe affected by cumulative or multiple adverse exposures from environmental hazards.

The Tar Creek Superfund Site is a 40 square mile former lead and zinc mining site located in Ottawa County, Oklahoma. The bulk of the mining operations occurred in the towns of Picher, Cardin, Hockerville, and Zincville. These towns were built near chat piles, mill ponds, mineshafts, boreholes, and mine workings which pose threats to human health and the environment. There is an estimated 75 million tons of mine waste in chat piles. The amount of chat contained in mill ponds is undetermined. Chat piles and mill ponds have been found to contain residual amounts of lead and other heavy metals (Gerberding, 2004). This is a concern to the citizens living in the Tar Creek site, due to exposure to heavy metals including lead.

Chat has been used in many applications throughout the Tar Creek site including driveways and fill material in residential settings (Datin and Cates, 2002). Due to the widespread nature of mining waste, exposure to lead and other heavy metals is a concern for children living in the Superfund site. In 1993 blood lead testing conducted by the Indian Health Service (IHS) indicated that 35% of the children tested at the IHS in Ottawa County had elevated blood lead levels. (Elevated blood lead levels are defined as being at or above 10 micrograms per deciliter). Since that time blood lead levels in children have declined, but remain above the national average (Gerberding, 2004). The decline is due to increased awareness and yard remediation conducted by the U.S. Environmental Protection Agency (EPA). However, the threat of lead exposure still remains for residents living in Picher and Cardin due to the presence of mine waste, mill ponds, and flotation ponds in close proximity to homes and businesses (ATSDR, 2004).

Lead exposure is of concern in children and adults. Children age six and under are most susceptible to lead poisoning, because their central nervous system is still forming. At this stage of life even exposure to low levels of lead can cause reduced IQ, behavioral problems, stunted growth, learning disabilities, attention deficit disorders, impaired hearing, and kidney damage. High levels of lead exposure in children can lead to mental retardation, coma, and death. Pregnant women are also sensitive to lead exposure. During pregnancy lead that is stored in the bones is re-released into the blood stream and can be transferred to the developing fetus. This can lead to elevated blood lead levels when the baby is born. Adults on the other hand require a much greater level of lead exposure to show health effects. If adults are exposed to high levels

of lead, then they may experience fertility problems, muscle and joint pain, memory and concentration difficulty, increase in blood pressure, and irritability (NSC, 2004).

Subsidence is another concern at the Tar Creek Superfund site. Subsidence has been occurring within the Superfund site since the time of mining and continues to pose a threat (USACE, 2006). Subsidence occurs for a number of reasons the main reasons being improper mine room support and deteriorating mine shafts. The mines at the Tar Creek site were mined using the room and pillar method. The room and pillar method consisted of leaving irregularly spaced pillars to support a given room size. Pillars were later partially or completely removed when ore bodies became scarce (Luza, 1986). This practice coupled with the appropriate geologic features created a greater potential for collapse. There are approximately 2,540 acres of underground mine workings in northeastern Oklahoma with depths ranging from 180 to 270 feet. These underground mine workings are located in 51 sections north of Miami with the greatest concentration in the Picher area (Luza and Keheley, 2006).

In 2006 the Oklahoma Geological Survey released an open file report that showed that at least 1,193 mine shafts exist within the Picher Field in Oklahoma. Of these 511 mine shafts were open and/or in some stage of collapse. In addition, 104 non-shaft related collapses were discovered with half of these being located west of Commerce and Cardin, Oklahoma (Luza and Keheley, 2006). Mine shaft related collapses have been associated with decaying mine shaft cribbing and/or collapse of the mine workings at depth within the shaft. Non-shaft related collapses tend to occur where mine rooms have tall ceilings and where mining extended upward into the limestone. In some cases the limestone was completely removed leaving shale roof rock, which tends to weaken the mine roof (USACE, 2006).

Demolition and associated activities in this project will result in a smaller amount of structures present within Picher, Cardin, and Hockerville, Oklahoma. Currently there is no plan for land use after demolition of structures. However, some possible effects of demolishing structures could include more open land for animal habitat/public recreation and opportunities for future development.

4.3 Executive Order 13045

On 21 April 1997, President Clinton issued Executive Order 13045 (EO 13045), Protection of Children From Environmental Health Risks and Safety Risks, which notes that children often suffer disproportionately from environmental health and safety risks, due in part to a child's size and maturing bodily systems. The executive order defines environmental health and safety risks as risks to health or to safety that are attributable to products or substances that the child is likely to come in contact with or ingest (such as the air we breath, the food we eat, the water we drink or use for recreation, the soil we live on, and the products we use or are exposed to). E.O. 13045 requires Federal agencies, to the extent permitted by law and mission, to identify and assess environmental health and safety risks that may affect children disproportionately. The Executive Order further requires Federal agencies to ensure that its policies, programs, activities, and standards address these disproportionate risks. E.O. 13045 is addressed in this EA to examine the effects this action will have on children.

4.4 Natural Resources

4.4.1 Terrestrial

The eastern part of the Oklahoma portion of the Picher Field is situated on the west edge of the Ozark Plateau Physiographic Province. The Ozark Plateau is a broad, low structural dome lying mainly in southern Missouri and northern Arkansas. However, the main part of the Picher Field is within the Central Lowland Physiographic Province. This province is characterized by a nearly flat, treeless prairie underlain by Pennsylvanian shale (Luza, 1986).

The rock formations exposed at the surface in the mining field include Mississippian and Pennsylvanian units that are nearly flat, with a low regional northwestward dip of about 20-25 feet per mile. Cambrian and Ordovician formations, primarily dolomite and chert with some sandstone and minor shale, are encountered only in deep drill holes and water wells in this area (Luza, 1986).

Mississippian rock units, principally the Boone Formation, are the host for most of the ore deposits. The Boone Formation is composed of fossiliferous limestone and thick beds of nodular chert. Significant quantities of mill-waste material were generated by milling of the lead-zinc ores. The discarded mill-waste material, chiefly composed of chert fragments 0.75 inches or less in diameter is referred to as chat. An inventory of tailings piles, former tailings piles, and former tailings ponds indicates there are 146 former chat-pile sites and 119 existing chat piles that occupy about 1,200 acres. Approximately 900 acres are overlain by chat piles. There is approximately 75 million tons of chat piled throughout the Tar Creek Superfund Site (Luza, 1986).

In 2006 the Oklahoma Geological Survey released an open file report that showed that at least 1,193 mine shafts exist within the Picher Field in Oklahoma. Of these 511 mine shafts were open and/or in some stage of collapse. In addition, 104 non-shaft related collapses were discovered with half of these being located west of Commerce and Cardin, Oklahoma (Luza and Keheley, 2006). Mine shaft related collapses have been associated with decaying mine shaft cribbing and/or collapse of the mine workings at depth within the shaft. Non-shaft related collapses tend to occur where mine rooms have tall ceilings and where mining extended upward into the limestone. In some cases the limestone was completely removed leaving shale roof rock, which tends to weaken the mine roof (USACE, 2006).

The streams that traverse the mining field, which are only slightly incised below prairie level, flow southward to the Neosho River. Elm Creek, on the western edge of the field, and Tar Creek are the principal streams in the main productive part of the field (Luza, 1986).

Topographic relief in the area is relatively small. The lowest point, south of Commerce, is about 780 feet National Geodetic Vertical Datum (NGVD). The average elevation is around 830 feet NGVD, and the highest point is about 900 feet NGVD (Luza, 1986).

Tar Creek is located within the Prairie Parkland Province (Bailey, 1980). Vegetation in this

province is characterized by intermingled tall grass prairie, with groves and strips of deciduous trees. This province covers an extensive area of about 218,200 square miles from Canada to Oklahoma, with alternating prairie and deciduous forests. Trees are commonly found near streams. Tall grass prairie species are the dominant prairie vegetation. Most are moderately tall and usually grow in bunches. The dominant species include big bluestem, little bluestem, switch grass, and Indian grass, along with many species of wildflowers and legumes. In many places where grazing and fire are controlled, deciduous forest is encroaching on the prairies. The upland forest in this area is dominated by oak and hickory. On floodplains and moist hillsides it includes eastern cottonwood, black willow, and American elm.

Prior to lead and zinc mining the project area was mainly upland timber and native grassland. Extensive ground coverage of chat left behind from mining operations resulted in the topsoil in the area being in very poor condition. The chat material is essentially devoid of organic content and will not support vegetation. As a result vegetation in areas with chat piles and bases is absent or of poor quality.

4.4.2 Soils

According to the U.S. Department of Agriculture (USDA) Soil Survey for Ottawa County, Oklahoma, most of the project area lies within the Dennis-Taloka association with a small portion within the Dennis-Parsons-Bates association. The Dennis-Taloka association is nearly level to moderately sloping upland soils formed in material from sandstone and shale or in old alluvium. The Dennis-Parsons-Bates association is nearly level to moderately sloping upland soils formed in material from sandstone and shale (USDA, 1964).

Areas throughout the soil maps with an Mp indicate that the land type consists of piles of rock and chat from zinc and lead mines. The larger piles cover 40 acres or more, and some are over 200 feet tall and can be seen for miles. In some areas there is only a thin covering of rock and chat. In many places drainage ways are blocked by rock and chat and nearby areas are ponded or made swampy. Seepage from these areas makes nearby soils, which are otherwise well drained, wet in many places. Most areas of the Mp soil type are without vegetation. This miscellaneous land type has little value for agriculture. In some areas it has minor value for wildlife (USDA, 1964).

4.4.3 Prime Farmland

Soil that is prime or unique farmland as defined in the Farmland Protection Policy Act is classified as prime farmland. According to the USDA, it is soil that is best suited for producing food, feed, forage, fiber, and oilseed crops. The Mine pits and dumps (Mp) classified soils are not classified as prime farmland. Farmland within a city or town is not considered prime farmland, because it has been taken out of production. None of the affected area is considered prime farmland, therefore the Farmland Protection Policy Act does not apply to this action.

4.4.4 Wild and Scenic Rivers

There are no streams within the project area that are classified as wild and scenic pursuant to the Federal Wild and Scenic Rivers Act, Public Law 90-542 (see letter from Chuck Potts with the Oklahoma Water Resources Board dated February 22, 2007, Appendix A).

4.4.5 Fish and Wildlife

Fish habitat within the Tar Creek Superfund site is limited to mill ponds, ponds, streams, and rivers. Many of these bodies of water contain mine waste and metals originating from historic lead and zinc mining operations. Species that have been collected from streams, millponds, and local ponds in the area for contaminants analysis include carp, channel catfish, spotted bass, largemouth bass, bluegill sunfish, and smallmouth buffalo. Fish caught locally in these waters are a common part of the diet of persons in the area. The consumption of fish containing elevated levels of metals is a concern because chronic exposure to heavy metals can cause health problems. In comparison to fish collected in the National Contaminant Biomonitoring Program, the fish collected in this area had lead concentrations higher than normal. The elevated levels of lead in the fish were correlated positively to the concentration of lead in the sediments of the waters. The consumption of whole-eviscerated or whole-uneviscerated fish from these waters is discouraged. However, the consumption of fillets from fish in this area is safe at rates at least as high as six 8-ounce meals per month according to the Oklahoma Department of Environmental Quality (DEQ, 2003).

On July 17, 2003, the Oklahoma DEQ issued a News Release that concluded that skinless fish fillets from all species in the Tar Creek Superfund site are safe to eat. However, DEQ's data indicate that lead and cadmium are present and above safe levels for consumption in bottom feeding species like carp, buffalo, and catfish when fish flesh and bones are combined (DEQ, 2003).

Several species of amphibians, reptiles, and birds occur in the vicinity of the project. However, wildlife diversity and numbers are very limited because of the extremely poor or non-existent habitat.

Mammals most likely to occur in the area include species such as fox squirrel (*Sciurus niger*), coyote (*Canus latrans*), raccoon (*Procyon lotor*), opossum (*Didelphis marsupialis*), striped skunk (*Mephitis mephitis*), and cottontail rabbit (*Sylvilagus floridanus*).

4.5 Wetlands

In a April 6, 2007 letter, the United States Army Corps of Engineers stated that no jurisdictional wetlands are identified within the project boundaries. Best Management Practices will be followed to ensure that any activity taken in close proximity to waters of the United States will be protected from incidental pollution from demolition debris or runoff. No major road relocations will occur that span streams in the area. Anticipated road or utility relocations will not impact wetlands in the project area (see Appendix E).

4.6 Threatened and Endangered Species

Federally listed species that occur in Ottawa County include the candidate Arkansas darter (*Etheostoma cragini*), threatened/proposed for delisting bald eagle (*Haliaeetus leucocephalus*), endangered gray bat (*Myotis grisescens*), threatened Neosho madtom (*Noturus placidus*), candidate Neosho mucket mussel (*Lampsilis rafinesqueana*), endangered Ozark big-eared bat (*Corynorhinus* (= *Plecotus*) *townsendii ingens*), endangered American burying beetle (*Nicrophorus americanus*), threatened Ozark cavefish (*Amblyopsis rosae*), endangered winged mapleleaf mussel (*Quadrula fragosa*), and endangered/threatened piping plover (*Charadrius melodus*).

The Arkansas darter is being proposed for federal listing. One of the regions that it can be found is the Ozark Plateau within the Spring and Neosho River drainages of southwestern Missouri, southeastern Kansas, and northeastern Oklahoma. The Arkansas darter typically lives in small streams with clear, cool water (generally less than 25°C) in the vicinity of springs or groundwater seeps with abundant broad-leaved aquatic vegetation (USGS, 2006).

The bald eagle was listed in 1967. It has a wingspan of 6 to 7.5 feet and is dark brown with a white head and tail and large yellow beak. Immature birds are mottled white underneath their wings and tail. The feet of both adults and immatures are bare of feathers. Bald eagles nest in trees or cliffs near water and winter near oceans, rivers, lakes, or in areas where carrion is present. Bald eagles winter and nest in Oklahoma. The bald eagle was proposed for delisting on July 6, 1999. However, the bald eagle is still considered threatened until a final decision is made and a final rule is published in the Federal Register (USFWS, 2007).

The gray bat was listed in 1976. It has a medium wingspan of 10 to 11 inches and a total length of 4 to 5 inches. It has grayish brown fur and is the only bat within its range with unicolored dorsal hair. The bat roosts almost exclusively in caves year-round and has very specific requirements. They are generally limited to limestone caves and have specific temperature requirements (USFWS, 2007).

The Neosho madtom was listed in 1991. It has features characteristic of all North American catfish, including scaleless skin and a relatively large head with sensory barbels. Adult Neosho madtoms average less than three inches in length. They have a brownish midline stripe and an overall mottled appearance. The preferred habitat of adult Neosho madtoms is shallow riffles with loose, incompact gravel bottoms. They are occasionally found in areas with sandy bottoms covered with leaf litter (USFWS, 2007).

The Neosho mucket mussel is listed as endangered on the Kansas state list, but it is not listed on the federal list. It lives in freshwater and has an elongated, slightly rounded shell and is approximately 4 inches across. The shell is thin, light brown and has a dull, waxy shin that usually becomes darker with age. One region that the Neosho mucket mussel was historically found is the Spring and Neosho River systems in Kansas, which flow into Oklahoma (KDWP, 2000).

The Ozark big-eared bat was listed in 1973. It is a medium sized bat with large ears. Its snout has prominent lumps and its fur ranges from light to dark brown. It is found in caves, cliffs, and rock ledges associated with oak-hickory forests of the Ozarks. They forage along the edges of upland forests for insects (USFWS, 2007).

The American burying beetle (ABB) was listed in 1989. The ABB is a member of the beetle family Silphidae and is known to bury vertebrate carcasses for reproductive purposes as well as exhibit parental care of young. The ABB is fully nocturnal and active when nighttime temperatures consistently exceed 60 F. For the remainder of its life cycle (generally mid-May to late-September) the ABB remains in an inactive state buried at soil depths ranging from 6- to 36-inches. It is the largest of the ABB species reaching a length of 1 to 1 ½ inches and is a relatively robust beetle having shiny black elytra with four orange-red spots. It also has a large orange-red spot on the pronotum which is indicative of the species. The habitat requirement for the ABB is not fully understood and it is considered a habitat generalist (USFWS, 2007).

Ottawa County, Oklahoma is within the documented historic range of the ABB. While its current presence has not been confirmed in this location, suitable habitat is present in Ottawa County and the area is adjacent to a county where the presence of the ABB has been confirmed. While many areas slated for demolition activities resulting from the proposed action do not possess suitable habitat for the species (e.g., paved areas), some ground disturbance may occur in areas with potentially suitable habitat. Critical habitat has not been designated for this species.

The Ozark cavefish was listed in 1984. It is a small, (2 to 2 ¼ inches), blind, pinkish-white fish that lives in cave streams and springs within the Springfield Plateau in Arkansas, Missouri, and Oklahoma (USFWS, 2007).

The winged mapleleaf mussel was listed in 1991. Originally it existed in 13 states in river and stream tributaries to the Mississippi River. Today it is found in one river, the St. Croix River, in Minnesota and Wisconsin. It is found in riffles with clean gravel, sand, or rubble bottoms and in clear, high quality water (USFWS, 2007).

The piping plover was listed in 1985. It is a small shorebird about seven inches long with a wingspan of 15 inches. Adults have sand-colored upper parts with white undersides and are easily distinguished by their bright orange legs. This species migrates across the eastern ¾ of Oklahoma during the spring and fall utilizing sandy shorelines on lakes and sandbars along the major river systems for forage and resting areas (USFWS, 2007).

4.7 Cultural Resources

The Picher-Cardin mining area is a historic district eligible for listing on the National Register of Historic Places (NRHP). This was a determination made by Tulsa District in 2004 in consultation with the Oklahoma State Historic Preservation Office (SHPO) in accordance with the district's responsibilities under Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended) and its implementing regulation 36 CFR Part 800. Although the full extent of historic features contributing to this historic district has not been described, a

Heritage Study of the area is currently being produced to address this shortcoming. The Heritage Study is addressed more thoroughly in Section 5.7 and in Appendix C. However, fieldwork and historic research conducted to date has resulted in identification of numerous historic structures related to the historic mining activities in the Picher-Cardin area. These structures may include, but are not limited to, processing towers, mine shafts, foundations, structure footings, and chat waste piles. Many or all of these historic features or structures may be contributing elements to the National Register historic district.

In accordance with Section 106 of the NHPA, consultation was initiated in 2004 with the SHPO and the Oklahoma Archeological Survey (OAS). Consultation for the general Tar Creek area, specifically relating to the Picher Field, was also initiated with appropriate Native American tribes in 2004. These tribes included the Caddo Tribe of Oklahoma, Cherokee Nation of Oklahoma, Delaware Tribe of Indians of Oklahoma, Eastern Shawnee Tribe of Oklahoma, Miami Tribe of Oklahoma, Modoc Tribe of Oklahoma, Osage Nation of Oklahoma, Ottawa Tribe of Oklahoma, Peoria Tribe of Indians of Oklahoma, Quapaw Tribe of Oklahoma, Seneca-Cayuga Tribe of Oklahoma, Wichita and Affiliated Tribes of Oklahoma, and Wyandotte Tribe of Oklahoma. To date, cultural resources consultation on the Picher-Cardin area has been extensive, culminating in the execution of a Programmatic Agreement (PA). Consultation efforts and results are discussed in more detail in Section 5.7.

4.8 Water Quality

Mining began in Ottawa County in the early 1900's and continued until the 1970's. The Boone Formation is the geological formation that was the source of the metal ore. The Boone Formation is also an aquifer. Due to the presence of the aquifer in the ore-producing Boone Formation, the mining companies were forced to pump large volumes of water from the extensive underground mine workings. Pumping continued until the mining ceased, at which time the aquifer and the mines began refilling. As water filled the mines, sulfide minerals within the mines, which had been oxidized by exposure to air, dissolved, creating acid mine water. By 1979, water levels had increased to the point that the acid mine water began discharging at the surface from numerous locations, severely impacting Tar Creek (EPA, 2005).

In addition, millions of tons of mine tailings and other waste material left over from the mining operations are present in the Picher area. Runoff from these materials is characterized by elevated concentrations of metals; especially iron, zinc, lead, and cadmium; and mineral acidity and sulfate (EPA, 2005). Thus these mine tailings, ponds, and wetlands throughout the project area contain many toxicants including lead and other heavy metals.

4.9 Air Quality

EPA published a Conformity Rule on November 30, 1993, requiring all Federal actions to conform to appropriate State Implementation Plans (SIP's) that were established to improve ambient air quality. At this time, the Conformity Rule only applies to Federal actions in non-attainment areas. A non-attainment area is an area that does not meet one or more of the National Ambient Air Quality Standards for the criteria pollutants designated in the Clean Air

Act (CAA). According to Kent Stafford with the DEQ, the State of Oklahoma was in compliance with the CAA through the end of 2006 (Appendix A, email dated March 13, 2007).

A conformity determination based on air emission analysis is required for each proposed Federal action within a non-attainment area. Since this geographical region is in attainment and meets the National Air Quality Standards for the criteria pollutants designated in the CAA, a conformity determination is not required.

4.10 Hazardous, Toxic, and Radiological Waste

Structures will be evaluated for lead based paint and asbestos containing materials prior to demolition. All waste materials will be disposed of properly per appropriate federal and state regulations.

SECTION 5.0 ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION

5.1 Social and Economic Impacts

Structures will be demolished to decrease the liability associated with empty homes, businesses, and public facilities in the area. Demolition of abandoned structures will positively affect aesthetics, safety, and reduce unlawful tenancy. Short-term impacts related to noise and construction traffic may impact the community. Short-term and temporary increases in local business associated with demolition activities could be experienced in the area.

5.2 Executive Order 12898

Demolition of structures would have a positive economic and health effect on minorities and low-income populations. (See letter dated December 11, 2006 in Appendix A).

5.3 Executive Order 13045

Demolition of structures would have a positive effect on children's health and safety. Positive impacts resulting from reduction of physical dangers associated with standing structures should be a benefit to area children.

5.4 Natural Resource Impacts

5.4.1 Terrestrial

Prior to lead and zinc mining the Picher area was mainly upland timber and native grassland. Extensive ground coverage of chat left behind from mining operations resulted in the topsoil in the area being in very poor condition. The chat material is essentially devoid of organic content and will not support vegetation in many areas. Terrestrial impacts would be restricted to the footprint of standing structures or related facilities slated for demolition. Following site

restoration, impacts to terrestrial resources should be largely positive as constructed facilities are replaced by vegetative cover.

5.4.2 Prime Farmland

There will be no impact to prime farmland soils since none exist in the project area.

5.4.3 Wildlife

Disturbance from noise caused by demolition activities could create a minor, short-term impact on wildlife in the immediate demolition vicinity. This disturbance would be temporary and would cease when demolition activities are completed. The completed project would provide a net positive benefit for wildlife as constructed facilities (e.g., homes) are replaced by more natural habitat.

5.5 Wetlands and Water Quality Permits

Structures to be demolished are not located in wetlands. Should there be an adjacent wetland present, best management practices will be utilized to minimize any effects on these resources. In addition, anticipated road or utility relocations will not impact wetlands in the project area. Accordingly, no impacts to wetlands are anticipated and the project will not necessitate issuance of a Department of Army Section 404 permit (Appendix E).

5.6 Threatened and Endangered Species

The proposed action should have no effects on threatened and endangered species or their habitat. With the possible exception of the ABB, suitable habitat for listed species does not exist in the immediate project area to be affected by demolition activities and impacts are therefore not anticipated. With regard to the ABB, standard protocol (Appendix D) developed by the USFWS will be employed by the LICRA Trust in coordination with DEQ to ensure that the species is not affected. The DEQ will coordinate site-specific aspects of the protocol with the USFWS Ecological Services Field Office as described in Appendix D. See Appendix A for correspondence related to threatened and endangered species.

5.7 Cultural Resources

As addressed in Section 4.7, the Picher-Cardin mining district is a historic district eligible for listing on the NRHP. Since 2004 Tulsa District has been engaged in a number of consultation efforts to ensure that the district meets the requirements identified in Section 106 of the National Historic Preservation Act of 1966 (as amended) and its implementing regulation 36 CFR Part 800. Ultimately, in 2005 a PA was executed between a number of agencies working in the area to guide undertakings and to offset the loss of historic features that contribute to Picher Field's eligibility for listing on the National Register.

Initially, for a series of five small pilot projects in the Tar Creek area, in 2004 Tulsa District executed a Memorandum of Agreement (MOA) with the SHPO in order to achieve compliance under Section 106. However, regarding all additional work planned for the Tar Creek area, SHPO subsequently withdrew from consultation under Section 106. Tulsa District subsequently began consulting with the Advisory Council on Historic Preservation (ACHP) in late 2004 to develop a PA to facilitate compliance with Section 106. Efforts were aimed at Section 106 compliance in consideration of a diverse field of agencies operating in the Picher-Cardin area, and a broad set of proposed undertakings to provide environmental remediation support. The PA also served to provide mitigation measures to offset the loss of historic features within the proposed Picher Field National Register Historic District.

In December 2004 the Quapaw Tribe of Oklahoma expressed an interest to participate in consultation, and in January 2005 the Quapaw Tribe hosted a consultation meeting in at their offices in the town of Quapaw, Oklahoma. Shortly thereafter, the Quapaw Tribe facilitated a consultation meeting in Tulsa, which began to focus on specific measures to be addressed in a PA. In late February 2005, the PA was executed among a number of federal and state agencies and the Quapaw Tribe. Signatories included (1) Advisory Council on Historic Preservation; (2) Oklahoma State Historic Preservation Office; (3) Oklahoma Archeological Survey; (4) Quapaw Tribe of Oklahoma; (5) U.S. Army Corps of Engineers, Tulsa District; (6) Environmental Protection Agency, Superfund Division; (7) U.S. Department of Housing and Urban Development; (8) U.S. Department of the Interior, Bureau of Indian Affairs; and (9) Oklahoma Department of Environmental Quality.

The PA, which is included as Appendix C of this EA, specified a number of different types of undertakings which would be exempt under the Agreement, as long as the mitigation measures outlined in the agreement were completed within a five year time frame. The primary method of offsetting the loss of historic properties is through the compilation of a Heritage Study, which is described in some detail in the PA. To date in early 2007 – although not fully completed – major portions of the Heritage Study exist in draft form.

The PA addresses buildings and standing structures within the Tar Creek study area in stipulation IV, Non-Exempt Undertakings. Specifically, “Agencies shall consult in accordance with subpart B of 36 CFR Part 800 regarding 1) undertakings that may affect buildings and standing structures and 2) activities that are not exempt (see stipulation III.A., or as may be revised).” In short, buildings and standing structures must be evaluated through the standard Section 106 process. This process includes the identification of historic properties and assessment of adverse effects relative to proposed undertakings. In accordance with these responsibilities, Tulsa District will evaluate all individual buildings and standing structures planned for demolition within the framework of the Section 106 process. If historic properties are identified and if these structures will be adversely affected, a MOA will be drafted through consultation with the SHPO and executed between SHPO, USACE Tulsa District, DEQ and other federal/state agencies or Native American tribes, as appropriate. Mitigation measures to offset the loss of these historic properties will be identified in the MOA.

5.8 Water Quality

The project is designed to properly demolish and dispose of structures within the boundary of the Relocation Assistance Zone (Appendix B). Best management practices will be employed during demolition activities to control impacts to surface water and groundwater (connected to the surface by open mineshafts). Because of these safeguards, this project is not expected to affect the quality of surface water or groundwater. (See email correspondence dated March 19, 2007 regarding sole source aquifers in the project area, Appendix A).

5.9 Air Quality

Demolition activity would have a minor temporary impact on air quality caused by heavy equipment operation and from fugitive dust (particulate) emissions in and around the project site. Demolition contractors will comply with all appropriate Federal air quality regulations to limit the dispersal of particulate matter. A temporary increase in exhaust emissions would be expected during demolition. Once demolition activities are complete, impacts to air quality should be negligible.

5.10 Hazardous, Toxic, and Radiological Waste

Prior to demolition activities, structures will be evaluated for lead based paint and asbestos containing materials. All waste materials will be disposed of properly per appropriate federal and state regulations.

5.11 Noise

There would be an increase in noise from heavy equipment during demolition, but this would be temporary and last only during the demolition period. In addition, due to relocation activities there will be fewer citizens remaining for the noise increase to affect.

5.12 Cumulative Impacts

It is recognized that the associated activities of this project are a very minor part of a much broader scope of remediation activities for the Tar Creek area. Actions addressed in this assessment result in positive impacts and are extremely limited in nature, scope, and funding amounts. It is also very likely that activities described in this assessment would occur regardless of use of Section 111 funds for these actions. Accordingly, the transfer of Federal funds and use of these funds for activities described in this assessment are deemed to be insignificant in terms of contribution to cumulative impacts for the overall remediation of the Tar Creek area. Demolition of homes with Section 111 funds will result in more open habitat for animals, more space for recreational purposes, and possible future redevelopment opportunities.

SECTION 6.0 RESTORATION PLAN

All construction and demolition debris will be disposed of properly. The remaining lot will be graded, fertilized, and seeded as appropriate and best management practices will be followed for all demolition activities.

Clearing and grubbing will be accomplished only to the extent necessary to perform required work . Clearing and grubbing within the construction limits will be strictly adhered to. Care will be exercised so as not to damage existing trees or vegetation that is outside the clearing limits. The transition between the disturbed areas and the undisturbed areas will be graded to minimize abrupt slope changes and possible erosion. Final grade contours will be carried to existing contours such that there is a smooth transition with no ponding of surface waters.

SECTION 7.0 FEDERAL, STATE, AND LOCAL AGENCY COORDINATION

A notice of availability of the Finding of No Significant Impact (FONSI) was provided to the following tribes, agencies, and organizations having responsibilities or interests in the Tar Creek Superfund Site. See Appendix A for list of addresses.

Senator Jim Inhofe
Senator Tom Coburn
U.S. Representative Dan Boren
State Representative Larry Glenn
State Senator Charles Wyrick
U.S. Environmental Protection Agency
Advisory Council on Historic Preservation
Oklahoma State Historic Preservation Office
Oklahoma Archeological Survey
Quapaw Tribe of Oklahoma
Eastern Shawnee Tribe of Oklahoma
Wyandotte Tribe of Oklahoma
Wichita and Affiliated Tribes of Oklahoma
Seneca-Cayuga Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Ottawa Tribe of Oklahoma
Osage Nation of Oklahoma
Modoc Tribe of Oklahoma
Miami Tribe of Oklahoma
Delaware Tribe of Indians of Oklahoma
Caddo Indian Tribe of Oklahoma
Cherokee Nation of Oklahoma
Bureau of Indian Affairs, U.S. Department of the Interior
U.S. Geological Survey
Office of Surface Mining, U.S. Department of the Interior
Oklahoma Conservation Commission
USDA Natural Resources Conservation Service
U.S. Bureau of Land Management
U.S. Fish and Wildlife Service
Oklahoma Department of Wildlife Conservation
Lead Impacted Communities Relocation Assistance Trust
City of Picher
Ottawa County Commissioner, District #1

SECTION 8.0 REFERENCES

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rafinesqueana).

Kansas Department of Wildlife and Parks. January 2000. *Neosho Mucket Mussel (Lampsilis rafinesqueana)*.

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SECTION 9.0 APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS

Table 9.0

Relationship of Plans to Environmental Protection Statutes and Other Environmental Requirements

Policies	Compliance of Alternatives
<u>Federal</u>	
Archeological and Historic Preservation Act, 1974, as amended, 16 U.S.C. 469, <u>et seq.</u>	All plans in full compliance
Clean Air Act, as amended, 42 U.S.C. 7609, <u>et seq.</u>	All plans in full compliance
Clean Water Act, 1977, as amended (Federal Water Pollution Control Act, 33 U.S.C. 1251, <u>et seq.</u>	All plans in full compliance
Comprehensive Environmental Response, Compensation and Liability Act, as amended, 42 U.S.C. 103, <u>et seq.</u>	All plans in full compliance
Endangered Species Act, 1973, as amended, 16 U.S.C. 1531, <u>et seq.</u>	All plans in full compliance
Federal Water Project Recreation Act, as amended, 16 U.S.C. 460-1-12, <u>et seq.</u>	N/A
Fish and Wildlife Coordination Act, as amended, 16 U.S.C. 661, <u>et seq.</u>	All plans in full compliance
Land and Water Conservation Fund Act, 1965, as amended, 16 U.S.C. 4601, <u>et seq.</u>	N/A
National Historic Preservation Act, 1966, as amended, 16 U.S.C. 470a, <u>et seq.</u>	All plans in full compliance
National Environmental Policy Act, as amended, 42 U.S.C. 4321, <u>et seq.</u>	All plans in full compliance
Native American Graves Protection and Repatriation Act, 1990, 25 U.S.C. 3001-13, <u>et seq.</u>	All plans in full compliance
Rivers and Harbors Act, 33 U.S.C. 401, <u>et seq.</u>	N/A
Watershed Protection and Flood Prevention Act, 16 U.S.C. 1001, <u>et seq.</u>	N/A
Wild and Scenic Rivers Act, as amended, 16 U.S.C. 1271, <u>et seq.</u>	N/A
Water Resources Planning Act, 1965	N/A
Floodplain Management (E.O. 11988)	All plans in full compliance
Protection of Wetlands (E.O. 11990).....	All plans in full compliance
Environmental Justice (E.O. 12898).....	All plans in full compliance
Farmland Protection Policy Act, 7 U.S.C. 4201, <u>et seq.</u>	All plans in full compliance
Protection of Children From Environmental Health Risks and Safety Risks (E.O. 13045)	All plans in full compliance

Note: Full compliance - Having met all requirements of the statutes, Executive Orders, or other environmental requirements for the current stage of planning.

SECTION 10.0 LIST OF PREPARERS

This EA has been prepared to address impacts associated with demolition of structures (homes, businesses, and public use facilities), necessary road and utility relocations, and NEPA compliance documentation. The following personnel contributed to the preparation of this document.

Heather R. Mallory – Environmental Programs Specialist; 3 years Oklahoma Department of Environmental Quality.

Angela R. Brunzman – Environmental Programs Manager; 11 years Oklahoma Department of Environmental Quality.

Stephen L. Nolen - Chief, Environmental Analysis and Compliance Branch; Biologist; 22 years U.S. Army Engineer District, Tulsa.

Jerry C. Sturdy - Biologist; 3 years U.S. Fish and Wildlife Service; 8 years U.S. Army Garrison, Fort Chaffee, Arkansas; 25 years U.S. Army Engineer Districts, Tulsa and Fort Worth.

Kenneth L. Shingleton, Jr. - Archaeologist; 7 years U.S. Army Engineer District, St. Louis; 4 years U.S. Army Engineer District, Tulsa.

APPENDIX A

COORDINATION

Mailing List for Notice of Availability of FONSI

U. S. Senator Jim Inhofe
1924 S. Utica Avenue
Suite 530
Tulsa, OK 74104 -6511

Senator Tom Coburn
1800 South Baltimore
Suite 800
Tulsa, OK 74119

U. S. Representative Dan Boren
309 West 1st Street
Claremore, OK 74017

State Representative Larry Glenn
1916 H NW
Miami, OK 74354

State Senator Charles Wyrick
58500 E. 155 Rd.
Fairland, OK 74343

Mike McAteer
USEPA REGION 6
1445 Ross Avenue
Suite 1200
Mail Code: 6SFLP
Dallas, TX 75202-2733

Sing Chia
USEPA REGION 6
1445 Ross Avenue
Suite 1200
Mail Code: 6SFLP
Dallas, TX 75202-2733

Mr. Don Klima, Director
Office of Federal Agency Programs
Advisory Council on Historic Preservation
12136 West Bayaud Ave, Suite 330
Lakewood, CO 80228

Dr. Bob Blackburn
State Historic Preservation Officer
Oklahoma Historical Society
2401 North Laird Avenue
Oklahoma City, OK 73105

Dr. Robert L. Brooks
University of Oklahoma
Oklahoma Archeological Survey
111 E. Chesapeake
Norman, OK 73019

Mr. John Berrey, Chairman
Quapaw Tribe of Oklahoma
P.O. Box 765
Quapaw, OK 74363

Mr. Charles Enyart, Chief
Eastern Shawnee Tribe of Oklahoma
P.O. Box 350
Seneca, MO 64865

Mr. Leaford Bearskin, Chief
Wyandotte Tribe of Oklahoma
P.O. Box 250
Wyandotte, OK 74370

Mr. Gary McAdams, President
Wichita and Affiliated Tribes of Oklahoma
P.O. Box 729
Anadarko, OK 73005

Mr. Leroy Howard, Chief
Seneca-Cayuga Tribe of Oklahoma
P.O. Box 1283
Miami, OK 74355

Mr. John Froman, Chief
Peoria Tribe of Indians of Oklahoma
P.O. Box 1527
Miami, OK 74355

Mr. Charles Dawes, Chief
Ottawa Tribe of Oklahoma

P.O. Box 110
Miami, OK 74355

Mr. Jim Gray, Principal Chief
Osage Nation of Oklahoma
P.O. Box 779
Pawhuska, OK 74056

Mr. Bill G. Follis, Chief
Modoc Tribe of Oklahoma
515 G SE Street
Miami, OK 74354

Mr. Floyd Leonard, Chief
Miami Nation of Oklahoma
P.O. Box 1326
202 S. Eight Tribes Trail
Miami, OK 74355

Mr. Jerry Douglas, Chief
Delaware Tribe of Indians of Oklahoma
170 N.E. Barbara
Bartlesville, OK 74006

Ms. LaRue Parker, Chairwoman
Caddo Indian Tribe of Oklahoma
P.O. Box 487
Binger, OK 73009

Mr. Chad Smith, Principal Chief
Cherokee Nation of Oklahoma
P.O. Box 948
Tahlequah, OK 74465

Ms. Jeanette Hanna
Regional Director
Eastern Oklahoma Regional Office
Bureau of Indian Affairs
P.O. Box 8002
Muskogee, OK 74402-8002

Ms. Kim Winton
District Chief
U.S. Geological Survey
202 NW 66th, Building 7

Oklahoma City, OK 73116

Mr. Dwight Thomas, Director
Tulsa Field Office
Office of Surface Mining
5100 East Skelly Drive, Suite 470
Tulsa, OK 74135

Mr. Mike Thralls, Executive Director
Oklahoma Conservation Commission
2800 N. Lincoln Blvd., Suite 160
Oklahoma City, OK 73105

Mr. Ron Hilliard, State Conservationist
USDA Agri-Center Bldg
100 USDA, Suite 206
Stillwater, OK 74074-2655

George Thomas, Wildlife Biologist
U.S. Bureau of Land Management
Oklahoma Field Office
7906 East 33rd Street
Suite 101
Tulsa, OK 74145

Mr. Jerry Brabander, Field Supervisor
U.S. Fish & Wildlife Service
9014 East 21st Street
Tulsa, OK 74129

Mr. Greg D. Duffy, Director
Oklahoma Dept. of Wildlife Conserv.
P.O. Box 53465
Oklahoma City, OK 73105

Mr. Richard Hatcher, Assistant Director
Oklahoma Dept. of Wildlife Conserv.
P.O. Box 53465
Oklahoma City, OK 73105

Larry Rice
Chairman, LICRA Trust
P.O. Box 96
Picher, OK 74360

Mr. Sam Freeman, Mayor
City of Picher
213 East 3rd
Picher, OK 74360

Mr. John Clarke
Ottawa County Commissioner, District 1
101 McDonald Drive
Quapaw, OK 74363

LETTERS SENT



STEVEN A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF
ENVIRONMENTAL QUALITY

BRAD HENRY
Governor

December 5, 2006

William Ray
Natural Resources Biologist
Oklahoma Department of Wildlife Conservation
1801 N. Lincoln
Oklahoma City, Oklahoma 73105

Dear Mr. Ray:

The purpose of this letter is to request information regarding endangered or threatened species in Ottawa County, Oklahoma. The area of interest lies in the Picher Quadrangle and covers some or all of the following sections: Township 29N, Range 22E, Section 13, 23, 24, 25, and 36; and Township 29N, Range 23E, Sections 13 thru 24 and Sections 28 thru 33. The attached map depicts the area of interest in more detail. The blue line on the map is the boundary line for the area described above.

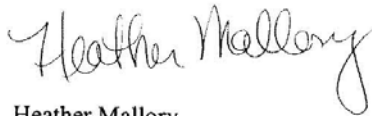
The Tar Creek Superfund site is located in Ottawa County, Oklahoma. The site is plagued by mining waste, mineshafts, and subsidence related issues all of which pose a risk to human health. Demolition of structures will be conducted in support of buyout activities in the Tar Creek Superfund Site pursuant to Senate Bill 1463. During demolition and disposal of construction materials, best management practices will be utilized. The information provided by your office will be used to demonstrate that relocating citizens, demolishing structures, and disposing of the associated waste will not negatively impact endangered or threatened species in Ottawa County, Oklahoma. This project funded by the U.S. Army Corps of Engineers (USACE) will assist in relocating residents away from the Tar Creek Superfund Site (see enclosed map). Relocating residents will remove them from the hazards that plague the site.

Please include a statement in your response that indicates these activities, funded by USACE dollars, will not negatively impact any identified species. If possible, please provide a map depicting the location of each endangered or threatened species and date(s) of occurrence.

Mr. William Ray
December 5, 2006
Page 2

A response within 30 days of receipt of this letter would be greatly appreciated. Should you have any questions please contact me at (405) 702-5113.

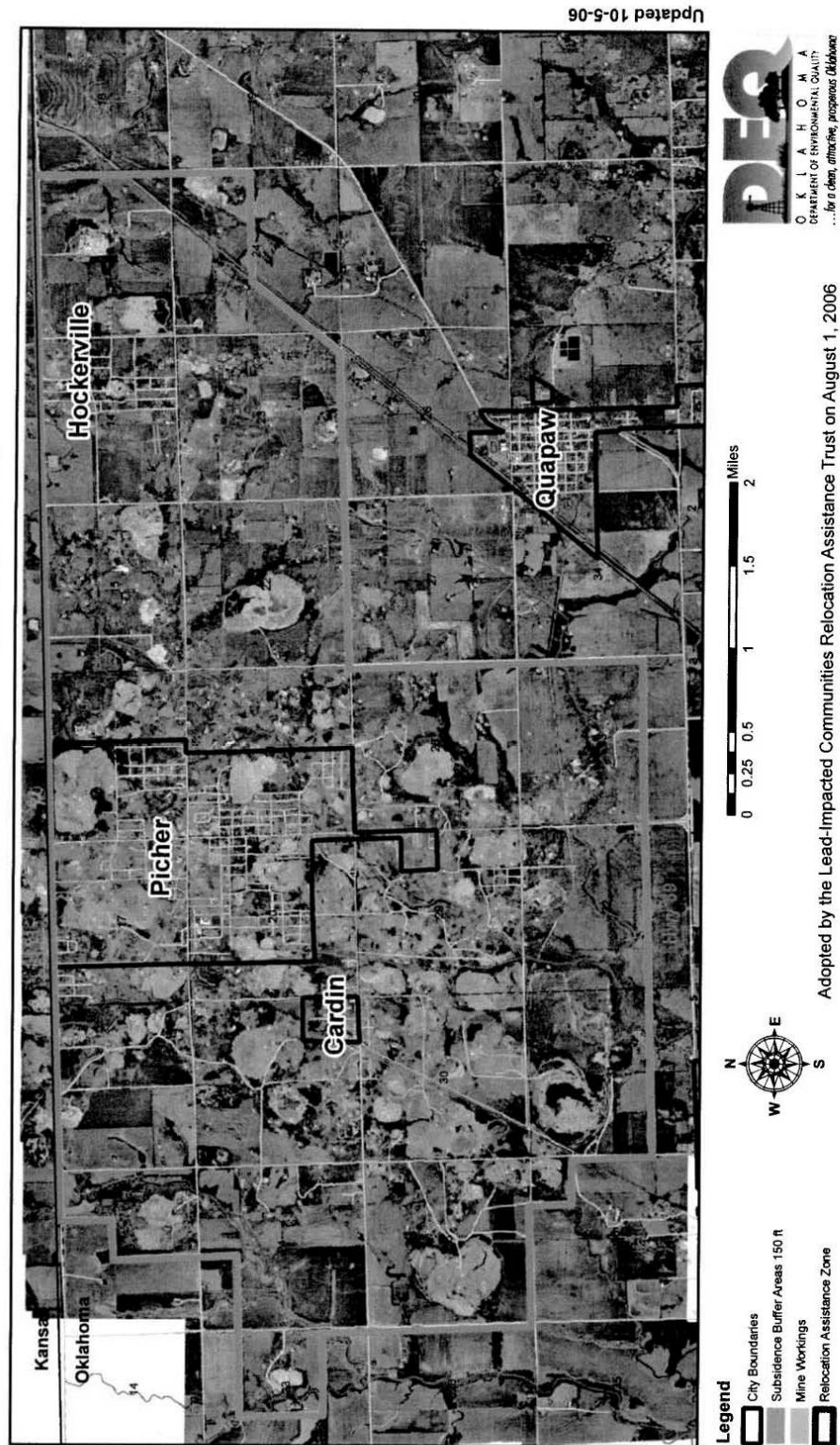
Sincerely,

A handwritten signature in cursive script that reads "Heather Mallory".

Heather Mallory
Environmental Programs Specialist
Tar Creek Section
Land Protection Division

Attachment

Relocation Assistance Zone



Adopted by the Lead-Impacted Communities Relocation Assistance Trust on August 1, 2006



STEVEN A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF
ENVIRONMENTAL QUALITY

BRAD HENRY
Governor

January 4, 2007

Joe Remondini
Flood Plain Management Division
CESWT-PE-P
U.S. Army Corps of Engineers, Tulsa District
1645 S. 101st East Avenue
Tulsa, OK 74128-4609

Dear Mr. Remondini:

The purpose of this letter is to request information regarding floodplains in Ottawa County, Oklahoma. The area of interest lies in the Picher Quadrangle and covers some or all of the following sections: Township 29N, Range 22E, Section 13, 23, 24, 25, and 36; and Township 29N, Range 23E, Sections 13 thru 24 and Sections 28 thru 33. The attached map depicts the area of interest in more detail. The blue line on the map is the boundary line for the area described above.

The Tar Creek Superfund site is located in Ottawa County, Oklahoma. The site is plagued by mining waste, mineshafts, and subsidence related issues all of which pose a risk to human health. Demolition of structures will be conducted in support of buyout activities in the Tar Creek Superfund Site pursuant to Senate Bill 1463. During demolition and disposal of construction materials, best management practices will be utilized. The information provided by your office will be used to demonstrate that relocating citizens, demolishing structures, and disposing of the associated waste will not negatively impact floodplains in Ottawa County, Oklahoma. This project funded by the U.S. Army Corps of Engineers (USACE) will assist in relocating residents away from the Tar Creek Superfund Site (see enclosed map). Relocating residents will remove them from the hazards that plague the site.

Please include a statement in your response that indicates these activities, funded by USACE dollars, will not negatively impact floodplains in Ottawa County. Please provide floodplain maps for the area of interest.

707 NORTH ROBINSON, P.O. BOX 1677, OKLAHOMA CITY, OKLAHOMA 73101-1677

Mr. Joe Remondini
January 4, 2007
Page 2

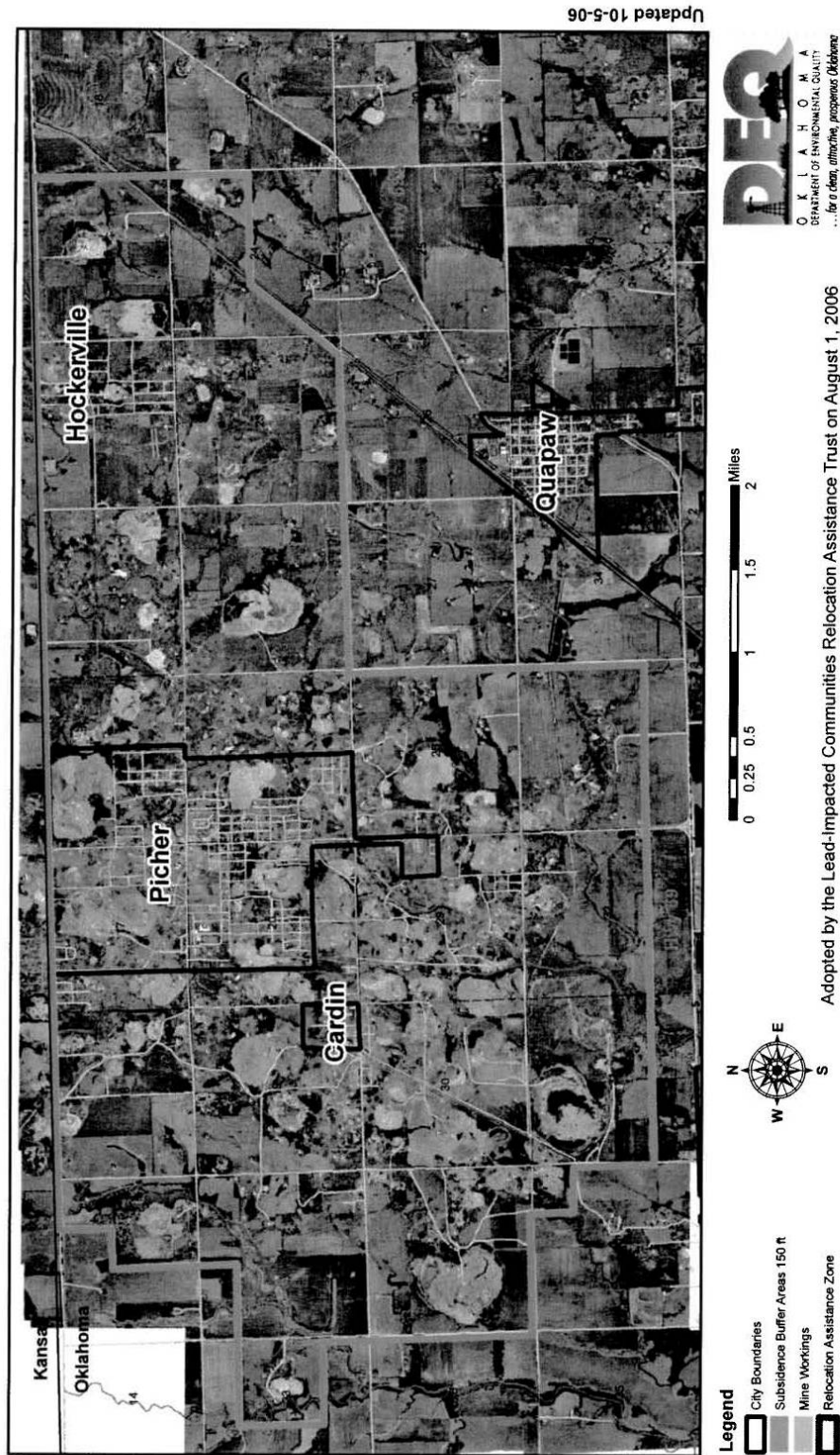
A response within 30 days of receipt of this letter would be greatly appreciated. Should you have any questions please contact me at (405) 702-5113.

Sincerely,

Heather Mallory
Environmental Programs Specialist
Tar Creek Section
Land Protection Division
Oklahoma Department of Environmental Quality

Attachment

Relocation Assistance Zone



Adopted by the Lead-Impacted Communities Relocation Assistance Trust on August 1, 2006



STEVEN A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF
ENVIRONMENTAL QUALITY

BRAD HENRY
Governor

February 14, 2007

Robert Brooks
Oklahoma Archeological Survey
University of Oklahoma
111 East Chesapeake, Building #134
Norman, OK 73019-5111

Mr. Brooks:

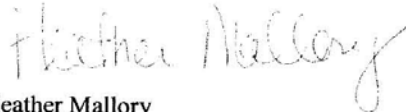
The purpose of this letter is to request information regarding archeological sites in Ottawa County, Oklahoma. The area of interest lies in the Picher Quadrangle and covers some or all of the following sections: Township 29N, Range 22E, Section 13, 23, 24, 25, and 36; and Township 29N, Range 23E, Sections 13 thru 24 and Sections 28 thru 33. The attached map depicts the area of interest in more detail. The blue line on the map is the boundary line for the area described above.

The Tar Creek Superfund site is located in Ottawa County, Oklahoma. The site is plagued by mining waste, mineshafts, and subsidence related issues all of which pose a risk to human health. This project funded by the U.S. Army Corps of Engineers (USACE) will assist in relocating residents away from the Tar Creek Superfund Site. Relocating residents will remove them from the hazards that plague the site. Demolition of structures (homes and businesses) will be conducted in support of buyout activities in the Tar Creek Superfund Site pursuant to Senate Bill 1463. During demolition and disposal of construction materials, best management practices will be utilized. The information provided by your office will be used to demonstrate that relocating citizens, demolishing structures, and disposing of the associated waste will not negatively impact archeological sites in Ottawa County, Oklahoma. Please include a statement in your response that indicates these activities, funded by USACE dollars, will not negatively impact any identified archeological sites. If possible, please provide a map depicting the location of each archeological site.

Mr. Robert Brooks
February 14, 2007
Page 2

A response within 30 days of receipt of this letter would be greatly appreciated. Should you have any questions please contact me at (405) 702-5113.

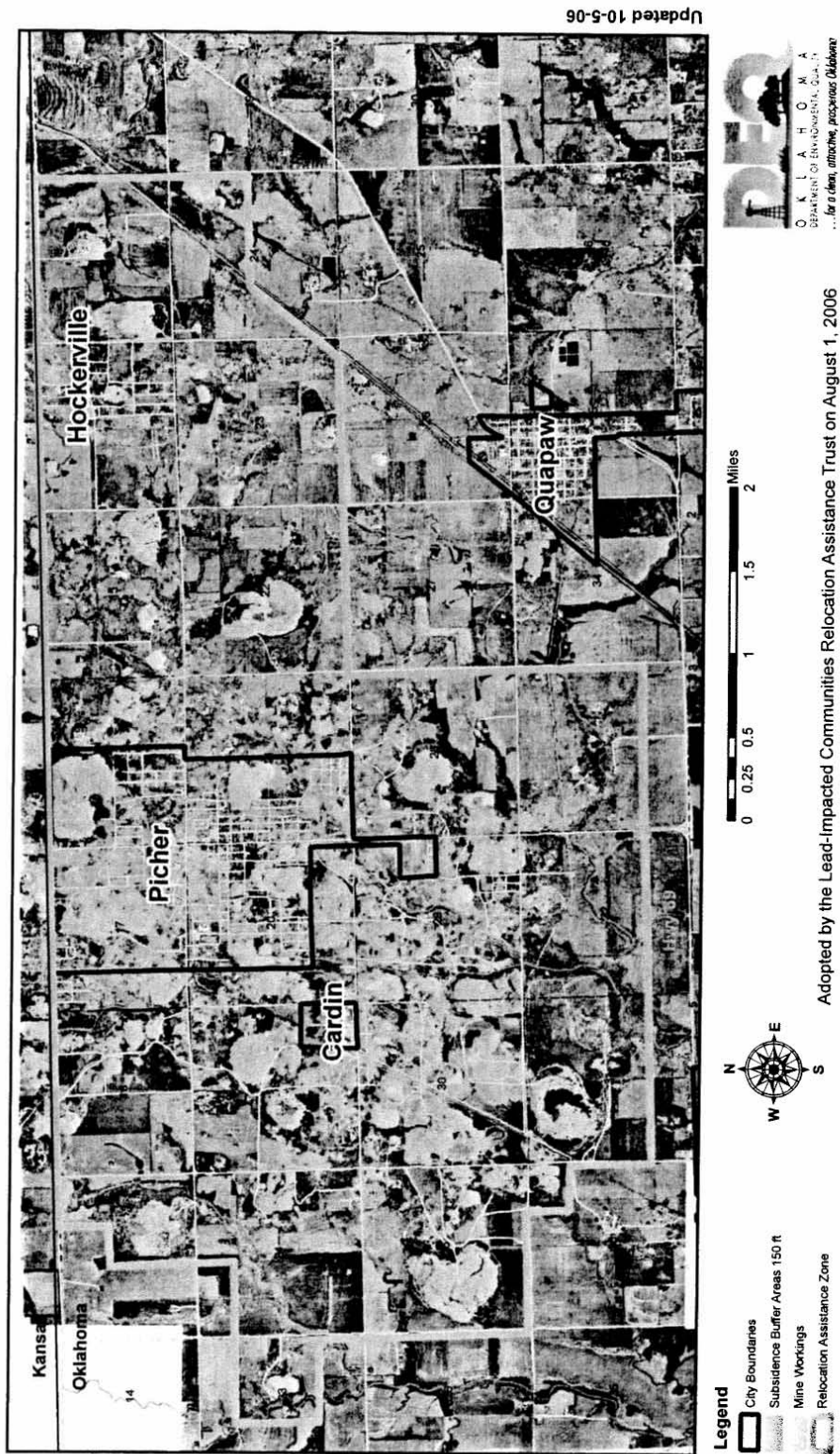
Sincerely,



Heather Mallory
Environmental Programs Specialist
Tar Creek Section
Land Protection Division

Attachment

Relocation Assistance Zone



Adopted by the Lead-Impacted Communities Relocation Assistance Trust on August 1, 2006



STEVEN A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF
ENVIRONMENTAL QUALITY

BRAD HENRY
Governor

February 21, 2007

Chuck Potts
Senior Environmental Programs Specialist
Water Quality Division
Oklahoma Water Resources Board
3800 N. Classen
Oklahoma City, Oklahoma 73118

Dear Mr. Potts:

The purpose of this letter is to request information regarding wild and scenic rivers in Ottawa County, Oklahoma. The area of interest lies in the Picher Quadrangle and covers some or all of the following sections: Township 29N, Range 22E, Section 13, 23, 24, 25, and 36; and Township 29N, Range 23E, Sections 13 thru 24 and Sections 28 thru 33. The attached map depicts the area of interest in more detail. The blue line on the map is the boundary line for the area described above.

The Tar Creek Superfund site is located in Ottawa County, Oklahoma. The site is plagued by mining waste, mineshafts, and subsidence related issues all of which pose a risk to human health. This project funded by the U.S. Army Corps of Engineers (USACE) will assist in relocating residents away from the Tar Creek Superfund Site. Relocating residents will remove them from the hazards that plague the site. Demolition of structures (homes and businesses) will be conducted in support of buyout activities in the Tar Creek Superfund Site pursuant to Senate Bill 1463. During demolition and disposal of construction materials, best management practices will be utilized. The information provided by your office will be used to demonstrate that relocating citizens, demolishing structures, and disposing of the associated waste will not negatively impact any wild or scenic rivers in Ottawa County, Oklahoma. Please include a statement in your response that indicates these activities, funded by USACE dollars, will not negatively impact any identified wild or scenic rivers. If possible, please provide a map depicting the location of each wild or scenic river.

767 NORTH ROBINSON, P.O. BOX 1677, OKLAHOMA CITY, OKLAHOMA 73101-1677

Mr. Chuck Potts
February 21, 2007
Page 2

A response within 30 days of receipt of this letter would be greatly appreciated. Should you have any questions please contact me at (405) 702-5113.

Sincerely,

A handwritten signature in cursive script that reads "Heather Mallory".

Heather Mallory
Environmental Programs Specialist
Tar Creek Section
Land Protection Division

Attachment

Relocation Assistance Zone



Updated 10-5-06



Adopted by the Lead-Impacted Communities Relocation Assistance Trust on August 1, 2006



STEVEN A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF
ENVIRONMENTAL QUALITY

BRAD HENRY
Governor

February 21, 2007

Andrew Commer
CESWT-RO
U.S. Army Corps of Engineers, Tulsa District
1645 S. 101st East Avenue
Tulsa, OK 74128-4609

Dear Mr. Commer:

The purpose of this letter is to request information regarding wetlands in Ottawa County, Oklahoma. The area of interest lies in the Picher Quadrangle and covers some or all of the following sections: Township 29N, Range 22E, Section 13, 23, 24, 25, and 36; and Township 29N, Range 23E, Sections 13 thru 24 and Sections 28 thru 33. The attached map depicts the area of interest in more detail. The blue line on the map is the boundary line for the area described above.

The Tar Creek Superfund site is located in Ottawa County, Oklahoma. The site is plagued by mining waste, mineshafts, and subsidence related issues all of which pose a risk to human health. This project funded by the U.S. Army Corps of Engineers (USACE) will assist in relocating residents away from the Tar Creek Superfund Site. Relocating residents will remove them from the hazards that plague the site. Demolition of structures (homes and businesses) will be conducted in support of buyout activities in the Tar Creek Superfund Site pursuant to Senate Bill 1463. During demolition and disposal of construction materials, best management practices will be utilized. The information provided by your office will be used to demonstrate that relocating citizens, demolishing structures, and disposing of the associated waste will not negatively impact "waters of the United States" in Ottawa County, Oklahoma.

Please see attached letter from the USACE dated September 30, 2004. It was determined that the projects described in the letter would not adversely impact "waters of the United States". We interpret the letter specifically to include "tailing and marshy areas in the disturbed landscape" as exempt from section 404 of the Clean Water Act.

We request a similar letter in regards to buyout related activities including: relocating residents, demolishing structures, and disposing of debris in the Tar Creek Superfund Site. Please include a statement in your response that indicates these activities, funded by USACE dollars, will not negatively impact "waters of the United States" in Ottawa County.

707 NORTH ROBINSON, P.O. BOX 1677, OKLAHOMA CITY, OKLAHOMA 73101-1677

Mr. Andrew Commer
February 21, 2007
Page 2

A response within 30 days of receipt of this letter would be greatly appreciated. Should you have any questions please contact me at (405) 702-5113.

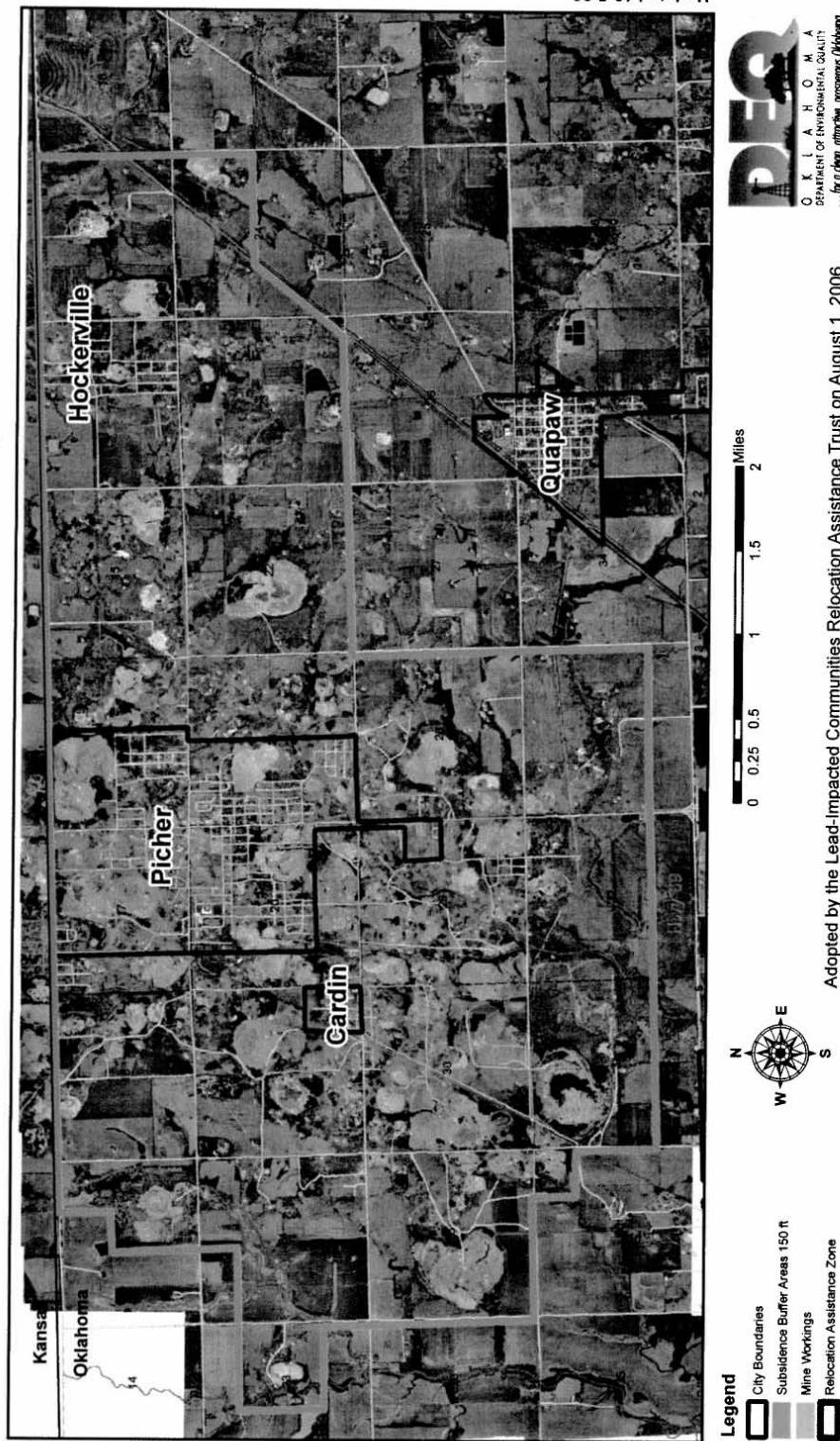
Sincerely,

A handwritten signature in cursive script that reads "Heather Mallory".

Heather Mallory
Environmental Programs Specialist
Tar Creek Section
Land Protection Division

Attachments

Relocation Assistance Zone





DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
1545 SOUTH 101ST EAST AVENUE
TULSA, OKLAHOMA 74123-6609

September 30, 2004

Planning, Environmental, and Regulatory Division
Regulatory Branch

Ms. Mary Jane Calvey
Oklahoma Department of Environmental Quality
707 North Robinson
P.O. Box 1677
Oklahoma City, OK 73101-1677

Dear Ms. Calvey:

Please reference your letter of August 27, 2004, regarding proposed road paving, mineshaft closures, and chat removal within the Tar Creek Superfund Site in Ottawa County, Oklahoma.

The proposed road paving of unpaved roads in northern Ottawa County will not involve or require the placement of dredged or fill material into "waters of the United States" including jurisdictional wetlands. Therefore, this proposal is not subject to regulation pursuant to Section 404 of the Clean Water Act (CWA), and a Department of the Army (DA) permit will not be required.

The proposed mineshaft closures and chat removal from tailing ponds and marshy areas in the disturbed landscape are not likely to occur in "waters of the United States". Nevertheless, U.S. Army Corps of Engineers policy in accordance with Regulatory Guidance Letter 85-7 for Superfund Projects is that environmental response actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) do not require authorization under Section 404 of the CWA. The described proposals qualify as CERCLA response actions under this policy. Therefore, your proposal is not subject to regulation pursuant to Section 404 of the CWA, and a DA permit will not be required.

Your project has been assigned Identification Number 14093. Please refer to this number during future correspondence. If further assistance is required, contact Mr. Andrew R. Commer at 918-669-7616.

Sincerely,

David A. Manning
David A. Manning
Chief, Regulatory Branch



STEVEN A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF
ENVIRONMENTAL QUALITY

BRAD HENRY
Governor

March 5, 2007

Jerry Brabander
U.S. Fish and Wildlife Service
222 South Houston, Suite A
Tulsa, OK 74127-8909

Dear Mr. Brander:

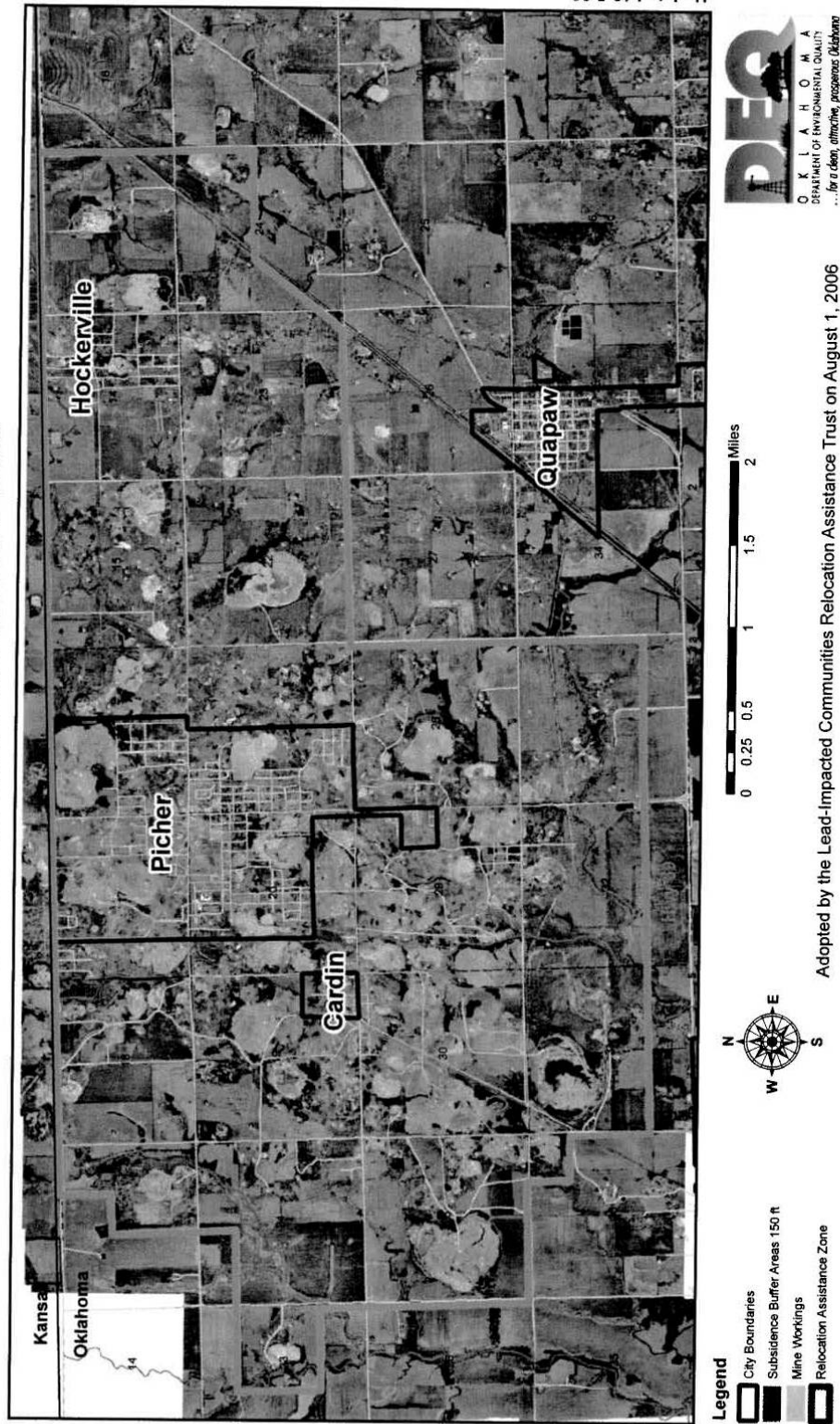
The purpose of this letter is to request information regarding endangered or threatened species in Ottawa County, Oklahoma. The area of interest lies in the Picher Quadrangle and covers some or all of the following sections: Township 29N, Range 22E, Section 13, 23, 24, 25, and 36; and Township 29N, Range 23E, Sections 13 thru 24 and Sections 28 thru 33. The attached map depicts the area of interest in more detail. The blue line on the map is the boundary line for the area described above.

The Tar Creek Superfund site is located in Ottawa County, Oklahoma. The site is plagued by mining waste, mineshafts, and subsidence related issues all of which pose a risk to human health. This project funded by the U.S. Army Corps of Engineers (USACE) will assist in relocating residents away from the Tar Creek Superfund Site. Relocating residents will remove them from the hazards that plague the site. Demolition of structures (homes and businesses) will be conducted in support of buyout activities in the Tar Creek Superfund Site pursuant to Senate Bill 1463. During demolition and disposal of construction materials, best management practices will be utilized. The information provided by your office will be used to demonstrate that relocating citizens, demolishing structures, and disposing of the associated waste will not negatively impact threatened and endangered species in Ottawa County, Oklahoma.

Please include a statement in your response that indicates these activities, funded by USACE dollars, will not negatively impact any identified species. If possible, please provide a map depicting the location of each endangered or threatened species and date(s) of occurrence.

707 NORTH ROBINSON, P.O. BOX 1677, OKLAHOMA CITY, OKLAHOMA 73101-1677

Relocation Assistance Zone



Adopted by the Lead-Impacted Communities Relocation Assistance Trust on August 1, 2006

Mallory, Heather

From: Mallory, Heather
Sent: Tuesday, March 13, 2007 10:37 AM
To: Houts, Michael
Subject: Compliance with Sole Source Aquifers for NEPA

On June 29, 2004 Mary Jane Calvey and I spoke with you regarding compliance with Sole Source Aquifers (40 CFR 149) for projects in the Tar Creek Superfund site in Ottawa County. During that time you stated that the "Roubidoux is not a sole-source aquifer" and provided a web link to confirm this www.epa.gov/region6/water/swp/ssa/gif/ssa.gif.

I am working on a NEPA document for the Tar Creek Buyout and was wondering if this information is still true with regard to the Roubidoux aquifer in Ottawa County, Oklahoma? Also, is the web link still up to date?

If you have any questions feel free to contact me.

Thanks,

*Heather Mallory
Environmental Programs Specialist
Department of Environmental Quality
(405) 702-5113
heather.mallory@deq.state.ok.us*

4/24/2007

Mallory, Heather

From: Mallory, Heather
Sent: Tuesday, March 13, 2007 10:18 AM
To: Stafford, Kent
Subject: CAA compliance for NEPA

On June 22, 2004 Mary Jane Calvey and I spoke with you regarding complying with the Clean Air Act for projects on the Tar Creek Superfund Site. You said that "the whole State was an attainment" during that time.

I am working on a NEPA document for the Tar Creek Buyout and was wondering if the whole State is still in compliance with the CAA?

If you have any questions feel free to contact me.

Thanks,

*Heather Mallory
Environmental Programs Specialist
Department of Environmental Quality
(405) 702-5113
heather.mallory@deq.state.ok.us*

4/24/2007

Mallory, Heather

From: Nally.Bill@epamail.epa.gov
Sent: Thursday, March 15, 2007 3:43 PM
To: Stafford, Kent
Cc: Mallory, Heather; Sather.Mark@epamail.epa.gov; Sather.Mark@epamail.epa.gov;
Casso.Ruben@epamail.epa.gov
Subject: Re: FW: CAA compliance for NEPA

Kent:

Sorry for the delay - server problems most of today. Jan's last analysis of the R6 Tribal PM monitoring network indicates there were no problems in OK as of 02/06/07. According to Mark (before the R6 annual R6 monitoring meeting), there were no problems with R6 Tribal O3 in OK.

Be aware that the Quapaw Tribe will (shortly) resume TCAMP phase 2 monitoring during Tribal chat sales and processing!

Bill Nally
EPA Region 6, Dallas Texas
Voice: (214)665-8351
Fax: (214)665-6762
E-Mail: Nally.Bill@EPA.gov

"Stafford, Kent"
<Kent.Stafford@deq.state.ok.us>

03/13/2007 09:30 AM

To
Bill Nally/R6/USEPA/US@EPA
cc
"Mallory, Heather"
<heather.mallory@deq.state.ok.us>
Subject
FW: CAA compliance for NEPA

Bill,

Below is an email from one of our Land Protection Division/Tar Creek folks. I told Heather that the State sites are in compliance with the CAA through the end of 2006 but that I needed to confirm with you that the Tribal sites are in compliance. If that is the case, please let us know in email, a statement to that effect. You can respond to both of us (Heather's email is in the address line). Thanks Bill.

From: Mallory, Heather
Sent: Tuesday, March 13, 2007 10:18 AM
To: Stafford, Kent
Subject: CAA compliance for NEPA

On June 22, 2004 Mary Jane Calvey and I spoke with you regarding complying with the Clean Air Act for projects on the Tar Creek Superfund Site. You said that "the whole State was an attainment" during that time.

I am working on a NEPA document for the Tar Creek Buyout and was wondering if the whole State is still in compliance with the CAA?

If you have any questions feel free to contact me.

Thanks,

Heather Mallory
Environmental Programs Specialist
Department of Environmental Quality
(405) 702-5113
heather.mallory@deq.state.ok.us

LETTERS RECEIVED



STEVEN A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

BRAD HENRY
Governor

December 11, 2006

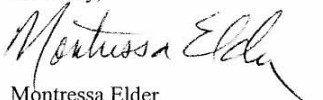
Heather Mallory
Environmental Programs Specialist
Land Protection Division
Oklahoma Department of Environmental Quality
PO Box 1677
Oklahoma City, Oklahoma 73101-1677

Dear Ms. Mallory;

As the Oklahoma Department of Environmental Quality (DEQ) Environmental Justice coordinator, I have reviewed the proposed demolition of structures in an area covering some or all of the following sections: Township 29N, Range 22E, Section 13, 23, 24, 25, and 36; and Township 29N, Range 23E, Sections 13 thru 24 and Sections 28 thru 33. This work will be conducted in support of buyout activities in the Tar Creek Superfund Site pursuant to Senate Bill 1463 and best management practices will be utilized during demolition and disposal of construction materials. The project will assist in relocating residents away from the Tar Creek Superfund Site. This project, as proposed, should not adversely impact any Environmental Justice communities in the area.

If you have further questions, feel free to contact me.

Sincerely,


Montressa Elder
Environmental Programs Manager

707 NORTH ROBINSON, P.O. BOX 1677, OKLAHOMA CITY, OKLAHOMA 73101-1677

printed on recycled paper with soy ink



WILDLIFE CONSERVATION COMMISSION

Bill Phelps
CHAIRMAN
M. David Riggs
VICE CHAIRMAN
Wade Brinkman
SECRETARY
John D. Groendyke
MEMBER

Bruce Mabrey
MEMBER
Mac Maguire
MEMBER
Lewis Stiles
MEMBER
Harland Stonecipher
MEMBER



BRAD HENRY, GOVERNOR
GREG D. DUFFY, DIRECTOR

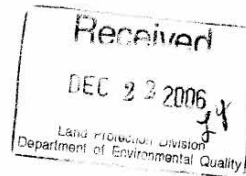
DEPARTMENT OF WILDLIFE CONSERVATION

P.O. Box 53465

Oklahoma City, OK 73152

PH. (405) 521-3851

December 22, 2006



Ms Mallory
Environmental Programs Specialist
Department of Environmental Quality
P.O. box 1677
Oklahoma City, OK 73101-1677

Re: Threatened and Endangered Species Review for Ottawa County, Oklahoma

Dear Ms Mallory,

This is in response to your letter dated December 5, 2006 requesting information pertaining to state-listed Threatened (T) and Endangered (E) within the area of impact as it relates to the above mentioned project. The proposed project will include relocation of residents away from the Tar Creek Superfund site within Ottawa County as well as demolition of existing structures and disposal of associated waste material.

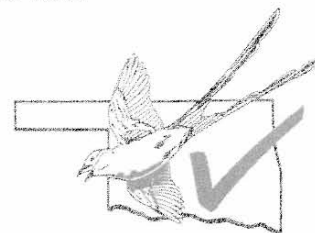
Table 1 is a list of threatened (T), endangered (E) and species of special concern (SS1 and SS2) that have been known to occur in Ottawa County. Please note that the rare species report provided to you is based solely on existing information in the database. Such a database is only as complete as the information that has been collected. Code explanations are given below:

T=Threatened

E=Endangered

C = Candidate Species

SS2= Species of Special Concern Category II-a species identified by technical experts as possibly threatened or vulnerable to extirpation but for which additional information is needed.



An Equal Opportunity Employer

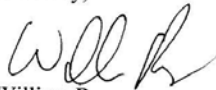
Search for the Scissors
on Your State Tax Form

Common Name	Scientific Name	Federal Status	State Status
Rabbitsfoot Mussel	<i>Quadrula cylindrical</i>		SS2
Neosho Mucket	<i>Lampsilis rafinesqueana</i>	C	E
Neosho Madtom	<i>Noturus placidus</i>	T	T
Ozark Cavefish	<i>Amblyopsis rosae</i>	T	T
Arkansas Darter	<i>Etheostoma cragini</i>	C	SS2
Gray Bat	<i>Myotis grisescens</i>	E	E
Oklahoma Salamander	<i>Eurycea tyrensis</i>	SS2	CS SS2
Barn Owl	<i>Tyto alba</i>	SS2	SS2

For additional information on federally listed threatened or endangered species and locations, contact the USFWS, Ecological Services, 222 South Houston, Suite A, Tulsa, OK 74127 or online at <http://www.fws.gov/southwest/es/oklahoma/spplist.htm>. For additional information on Oklahoma State listed and sensitive species, we recommend that you contact the Oklahoma Natural Heritage Inventory, 111 E. Chesapeake Street, Norman, OK 73019 or online at <http://www.oknaturalheritage.ou.edu/>. The ODWC coordinates its efforts with both of these agencies on a regular basis in response to projects that undergo the NEPA process and generally support their findings, recommendations and requirements.

Thank you for the opportunity to review this project and provide comments. If you should have any questions, please do not hesitate to contact me in at (405) 521-3721.

Sincerely,



William Ray
Natural Resources Biologist



Oklahoma Archeological Survey

THE UNIVERSITY OF OKLAHOMA

RECEIVED

FEB 23 2007

LAND PROTECTION DIVISION
DEPT OF ENVIRONMENTAL QUALITY

February 21, 2007

Heather Mallory
Environmental Programs Specialist
Tar Cree Section
Land Protection Division
Oklahoma Department of Environmental Quality
707 North Robinson
P. O. Box 1677
Oklahoma City, OK 73101-1677

Re: Proposed mediation at the Tar Creek Superfund Site. Legal Description:
Sections 13, 23-26, and 36 T29N R22E; Sections 13-24, Sections 28-33 T29N
R23E, Ottawa County, Oklahoma.

Dear Ms. Mallory:

I have reviewed the above referenced legal descriptions for the presence of previously recorded or known cultural resources. This records search revealed the presence of two previously recorded sites in Section 36 T29N R22E (34OT103 and 34OT104) and one previously recorded site in Section 28 T29N R23E (34OT107). All three of these represent historic archaeological remains dating to the late nineteenth-early twentieth centuries. None are currently listed on or eligible for the National Register of Historic Places. **However, per the Memorandum of Agreement for Tar Creek and our arrangement with the State Historic Preservation Office, I defer comment on these resources to their Historic Archaeologist.**

This review has been conducted in cooperation with the State Historic Preservation Office, Oklahoma Historical Society.

Sincerely,

Robert L. Brooks
State Archaeologist

cc: SHPO

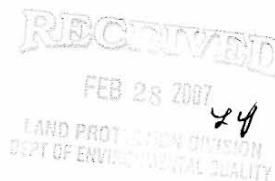
111 E. Chesapeake, Room 102, Norman, Oklahoma 73019-5111 PHONE: (405) 325-7211 FAX: (405) 325-7604
A UNIT OF ARTS AND SCIENCES SERVING THE PEOPLE OF OKLAHOMA

DUANE A. SMITH
EXECUTIVE DIRECTOR



BRAD HENRY
GOVERNOR

STATE OF OKLAHOMA
WATER RESOURCES BOARD
www.owrb.state.ok.us



February 27, 2007

Heather Mallory
Oklahoma Department of Environmental Quality
Land Protection Division
707 N. Robinson
Oklahoma City, OK 73101

Dear Ms. Mallory:

In reference to your query of February 21st, the following should provide you the necessary information to demonstrate that activities in and near the Tar Creek buy-out site will not adversely impact any of Oklahoma's scenic rivers.

Oklahoma does not possess any "Wild and Scenic Rivers" as defined by the Wild And Scenic Rivers Act (16 U.S.C. 1271-1287). However, Oklahoma has designated six river segments as Scenic Rivers pursuant to the Scenic Rivers Act (82 OS 1452-1471). The closest of these is located in the southern most area of Delaware County as shown in the attached map. This segment of Flint Ck is approximately 52 miles away and should not be affected by demolition and cleanup activities in the Tar Creek area.

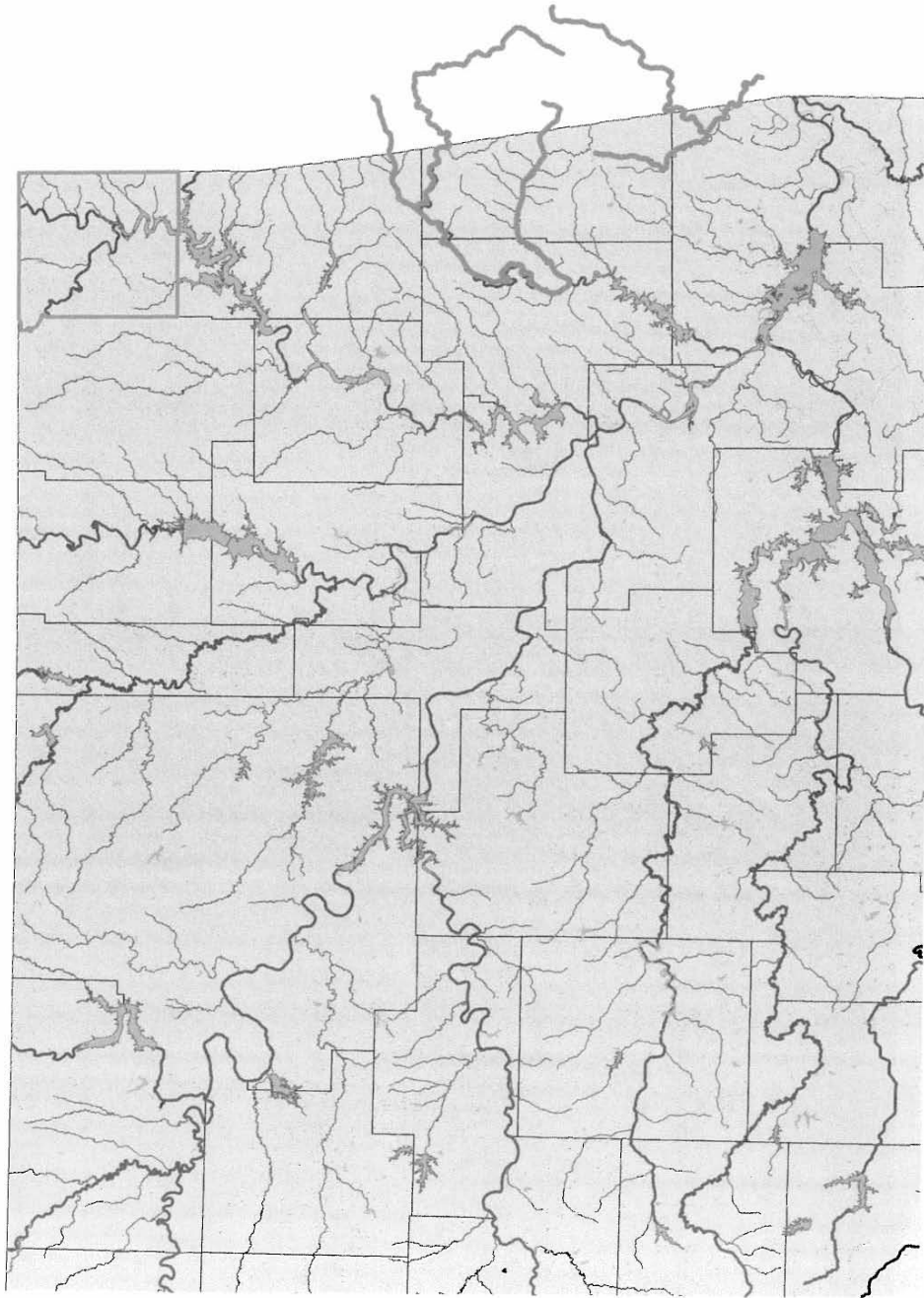
Please feel free to contact me at (405) 530-8800 if you have any other questions related to Oklahoma's Water Quality Standards.

Sincerely,

Chuck Potts
Water Quality Programs Division



3800 N. CLASSEN BOULEVARD • OKLAHOMA CITY, OKLAHOMA 73118 • TELEPHONE (405) 530-8800 • FAX (405) 530-8900
Rudy Hermann, Chairman • Mark Nichols, Vice Chairman • Bill Secrest, Secretary
Lonnie L. Farmer • F. Ford Drummond • Richard C. Sevenoaks • Jack Keeley • Ed Fite • Kenneth K. Knowles



Mallory, Heather

From: Stafford, Kent
Sent: Tuesday, March 13, 2007 10:19 AM
To: Mallory, Heather
Subject: RE: CAA compliance for NEPA

We are still in compliance through the end of 2006.

From: Mallory, Heather
Sent: Tuesday, March 13, 2007 10:18 AM
To: Stafford, Kent
Subject: CAA compliance for NEPA

On June 22, 2004 Mary Jane Calvey and I spoke with you regarding complying with the Clean Air Act for projects on the Tar Creek Superfund Site. You said that "the whole State was an attainment" during that time.

I am working on a NEPA document for the Tar Creek Buyout and was wondering if the whole State is still in compliance with the CAA?

If you have any questions feel free to contact me.

Thanks,

*Heather Mallory
Environmental Programs Specialist
Department of Environmental Quality
(405) 702-5113
heather.mallory@deq.state.ok.us*

3/13/2007



DEPARTMENT OF ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101ST EAST AVENUE
TULSA, OKLAHOMA 74128-4609

March 16, 2007

Planning, Environmental Division
Planning Branch

RECEIVED
MAR 13 2007
LAND PROTECTION DIVISION
DEPT OF ARMY/ENGINEERS

Ms. Heather Malloy
Department of Environmental Quality
Post Office Box 1677
Oklahoma City, OK 73101-1677


Dear Ms. Malloy:

This is in response to your letter requesting flood plain comments on the Tar Creek buy out and demolition project in Picher and Ottawa County, Oklahoma. Portions of the affected area are within the 100 year flood plain (Zone A) according to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM). The current FIRM is dated December 2, 1988.

The demolition project itself would have no adverse impact on the flood plains. During implementation care should be taken to assure that there is no obstruction to flow or resultant stream blockage when the demolition is complete. The work should also be in compliance with local state and federal flood plain regulations including executive order 11988.

If you have questions please call me at 918-669-7198.

Sincerely,


Joseph R. Remondini, P.E., CFM
Project Manager
Flood Plain Management Services

-2-

Copies Furnished:

Mr. Gavin Brady
Oklahoma Water Resources Board
Oklahoma City, OK 73118

Mr. Mike Payton
Ottawa County FPA
Miami, OK 74354

Mr. Jeff Reeves
Picher, OK 74360

Mr. James Orwat
FEMA Region VI
Denton, TX 76209

Mallory, Heather

From: Houts, Michael
Sent: Monday, March 19, 2007 9:55 AM
To: Mallory, Heather
Subject: RE: Compliance with Sole Source Aquifers for NEPA

As far as I know.

From: Mallory, Heather
Sent: Tuesday, March 13, 2007 10:37 AM
To: Houts, Michael
Subject: Compliance with Sole Source Aquifers for NEPA

On June 29, 2004 Mary Jane Calvey and I spoke with you regarding compliance with Sole Source Aquifers (40 CFR 149) for projects in the Tar Creek Superfund site in Ottawa County. During that time you stated that the "Roubidoux is not a sole-source aquifer" and provided a web link to confirm this www.epa.gov/region6/water/swp/ssa/gif/ssa.gif.

I am working on a NEPA document for the Tar Creek Buyout and was wondering if this information is still true with regard to the Roubidoux aquifer in Ottawa County, Oklahoma? Also, is the web link still up to date?

If you have any questions feel free to contact me.

Thanks,

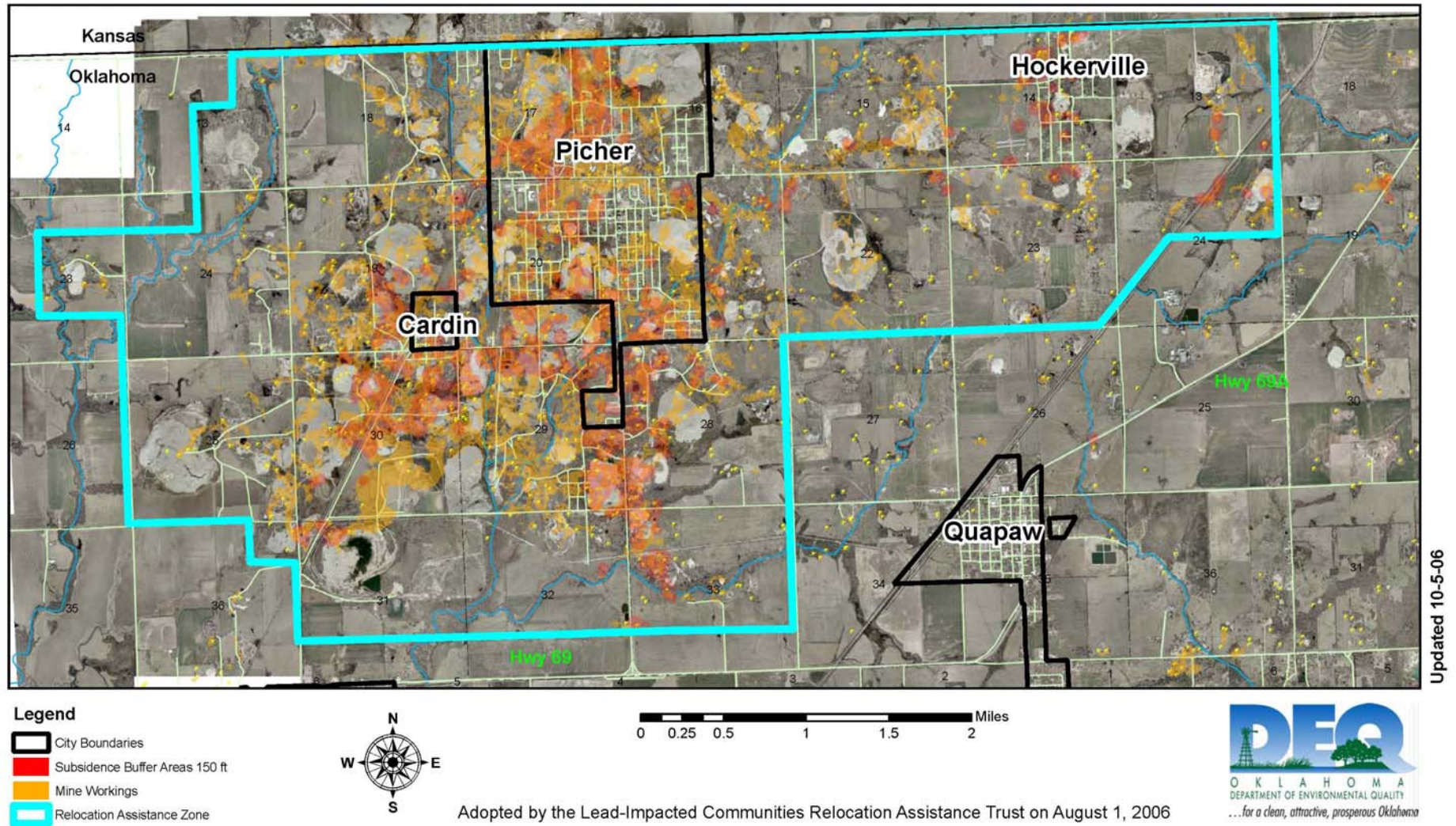
*Heather Mallory
Environmental Programs Specialist
Department of Environmental Quality
(405) 702-5113
heather.mallory@deq.state.ok.us*

3/19/2007

APPENDIX B

RELOCATION ASSISTANCE ZONE MAP

Relocation Assistance Zone



APPENDIX C

**CULTURAL RESOURCES:
PROGRAMMATIC AGREEMENT**

RECEIVED

2005 MAR 10 PM 1:26

EXECUTIVE DIRECTORS
OFFICE



Preserving America's Heritage

March 15, 2005

Enclosed is the final Programmatic Agreement for the Tar Creek/Picher Field Cleanup Project in Ottawa County, Oklahoma, with all signatory pages. The Agreement has been signed by the Executive Director of the Advisory Council on Historic Preservation, Chairman of the Quapaw Tribe of Oklahoma, and officials of the U.S. Army Corps of Engineers, the Environmental Protection Agency, Bureau of Indian Affairs, the U.S. Department of Housing and Urban Development, the Oklahoma Department of Environmental Quality, and the Oklahoma Archaeological Survey, and the Oklahoma State Historic Preservation Officer. This signed Agreement and its implementation evidence that the Federal signatory agencies have complied with Section 106 of the National Historic Preservation Act.

Thank you for your cooperation. We look forward to working with you in the future. If you have any questions or wish to discuss the PA further, please contact me at 303-969-5110 or via email at mnowick@achp.gov.

Sincerely,

Margie Nowick
Program Analyst
Western Office of Federal
Agency Programs

ADVISORY COUNCIL ON HISTORIC PRESERVATION

12136 West Bayaud Avenue, Suite 330 • Lakewood, Colorado 80228
Phone: 303-969-5110 • Fax: 303-969-5115 • achp@achp.gov • www.achp.gov

PA Regarding the Tar Creek/Picher Field Mine Cleanup Project

PROGRAMMATIC AGREEMENT

AMONG

**THE U.S. ARMY CORPS OF ENGINEERS, TULSA DISTRICT;
BUREAU OF INDIAN AFFAIRS, EASTERN OKLAHOMA REGION;
ENVIRONMENTAL PROTECTION AGENCY;
U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT;
OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY;
THE QUAPAW TRIBE OF OKLAHOMA (O-GAH-PAH);
OKLAHOMA STATE HISTORIC PRESERVATION OFFICE;
OKLAHOMA ARCHEOLOGICAL SURVEY;**

AND

THE ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING

**THE TAR CREEK/PICHER FIELD CLEANUP PROJECT,
OTTAWA COUNTY, OKLAHOMA**

WHEREAS, the U.S. Army Corps of Engineers, Southwestern Division, Tulsa District (Army Corps); Bureau of Indian Affairs (BIA); Environmental Protection Agency (EPA); and the U.S. Department of Housing and Urban Development (HUD) (agencies) propose to fund, assist, plan, construct, approve, permit, and otherwise facilitate, wholly or in part, numerous and varied hazard mitigation and environmental remediation activities in the vicinity of the Picher-Cardin Lead and Zinc Mining Area, Ottawa County, Oklahoma, part of the Tri-State Mining District and including the Tar Creek Superfund Site; and

WHEREAS, the agencies may fund, plan, implement, approve, or otherwise facilitate, wholly or in part, a wide variety of hazard mitigation and remediation activities in the Picher-Cardin Lead and Zinc Mining Area, including (but not limited to): (1) plugging and/or capping mine shaft openings; (2) removing, redistributing, processing or washing mine waste (chat) and/or approving the sales and removals, redistributions, and processing or washing of mine waste (chat), and approving Temporary Operating Permits or other permits and leases related to remediation activities; (3) filling surface depressions, ponds, or mine pits; (4) leveling, removing, or otherwise utilizing the footings, foundations, and other remains associated with historic mining activities; (5) removing soil, mining waste, or other surface debris and replacing it with new soil; (6) planning and constructing projects designed to improve the quality of running water and/or groundwater in the encompassing watersheds; (7) stream and habitat restoration activities, (8) monitoring, testing, planning and other support activities related to the hazard mitigation and remediation activities; and (9) post-remediation reclamation, all of which collectively and/or

individually may be undertakings subject to review under Section 106 of the National Historic Preservation Act, as amended (16 U.S.C. 470f) and shall be known as "undertakings" or "activities" for the purposes of this Agreement; and

WHEREAS, the agencies, in consultation with the Oklahoma State Historic Preservation Office (SHPO) and the Quapaw Tribe of Oklahoma, agree that information available in standard published sources establish the historical significance of the lead and zinc mining industry in northeast Oklahoma and that site visits confirm the presence of numerous features, such as ruins and buildings, that may be eligible for the National Register of Historic Places (National Register); and

WHEREAS, the agencies have determined that the undertakings, both present and as may be defined in the future, may have an adverse effect on historic properties, known or as may be identified in the future, and have consulted with the Advisory Council on Historic Preservation (ACHP), the SHPO, and the Quapaw Tribe of Oklahoma, to develop and implement this agreement (Agreement) in accordance with 36 CFR 800.14(b) for compliance with Section 106 of the National Historic Preservation Act, as amended (16 U.S.C. 470f), with the goal of expediting these undertakings in the interests of public health and safety and environmental benefit and better addressing their direct, indirect, and cumulative effects on historic properties; and

WHEREAS, the Oklahoma Department of Environmental Quality (ODEQ) plans, coordinates, and carries out many of these undertakings and activities in cooperation with and as delegated by the agencies, will be considered to be one of the agencies for the purposes of this Agreement to the extent that the other agencies delegate tasks and actions to DEQ; and therefore is a party and signatory to this Agreement; and

WHEREAS, the Quapaw Tribe of Oklahoma (O-Gah-Pah) (Quapaw Tribe) is a party and signatory to this Agreement because undertakings may occur on or affect historic properties within the Quapaw Tribe's jurisdiction, tribal trust lands, and/or individual allotments; because the Quapaw Tribe has strong and direct historical associations with zinc and lead mining in the Picher Field and vicinity; because the Quapaw Tribe may attach cultural and religious significance to historic properties that may be affected by these undertakings; because the Quapaw Tribe possesses special expertise regarding the religious and cultural significance that historic properties may have to the Quapaw Tribe; and because the agencies have consulted with the Quapaw Tribe on a government-by-government basis in the development of this Agreement and will continue to do so in its implementation; and

WHEREAS, the Army Corps, on behalf of the other agencies, has contacted all known Federally-recognized Indian tribes that may be associated with the Picher Field/Tar Creek project area, including the Caddo Tribe of Oklahoma, Cherokee Nation of Oklahoma, Delaware Tribe of Indians of Oklahoma, Eastern Shawnee Tribe of Oklahoma, Miami Tribe of Oklahoma, Modoc Tribe of Oklahoma, Osage Nation of Oklahoma, Ottawa Tribe of Oklahoma, Peoria Tribe of Indians of Oklahoma, Quapaw Tribe of Oklahoma, Seneca-Cayuga Tribe of Oklahoma, United Keetoowah Band of Cherokee Indians of Oklahoma, Wichita and Affiliated Tribes of Oklahoma, Wyandotte Tribe of Oklahoma (collectively, the tribes), to consult with the tribes on a government-to-government basis on the development of this Agreement and will continue to consult with the tribes in the implementation of this Agreement; and

WHEREAS, the Oklahoma Archeological Survey (OAS) is a party and signatory to this Agreement because, pursuant to a cooperative agreement with the SHPO, it maintains site files for archaeological sites located within the state of Oklahoma and provides professional expertise

in prehistoric (pre-contact) archaeology, such as opinions on National Register eligibility, effect determinations, and recommendations for mitigation of adverse effects to prehistoric archaeological sites; accordingly, signatories shall notify the SHPO and OAS simultaneously of requests for comments and other communications pursuant to this Agreement; and

WHEREAS, the U.S. Department of Housing and Urban Development's undertaking regarding the Tar Creek/Picher Field Cleanup Project is limited per the grant agreement for Neighborhood Initiatives Grant #B-04-NI-OK-0036, executed with the Oklahoma Department of Environmental Quality on July 27, 2004, and is limited to the amount of the fiscal year 2004 Congressional appropriation for such Grant. HUD's undertaking would also be limited per any future grant agreements for any future related appropriations mandated by Congress.

NOW, THEREFORE, the agencies, the Quapaw Tribe, SHPO, OAS, and ACHP agree that the undertakings shall be implemented in accordance with the following stipulations in order for the agencies to take into account the effects of those undertakings on historic properties.

STIPULATIONS

The agencies, individually and collectively, shall ensure that the following measures are carried out:

I. SCOPE OF THIS AGREEMENT

A. The geographical scope of this Agreement, or Area of Potential Effects (APE or project area) of Picher Field/Tar Creek cleanup and environmental remediation undertakings collectively, is the area bounded by the Kansas state line; the east side of the 100-year floodplain plus 100-foot buffer of the Spring River; the New State Road; the 100-year floodplain plus 100-foot buffer on the west side of Elm Creek; and the 100-year floodplain plus 100-foot buffer on both sides of Tar Creek to its confluence of the Neosho River. This approximately 40-square mile area is mostly within, but not necessarily limited to, the Picher-Cardin Field, located primarily in Township 29 North Ranges 23 and 24 East, and partly in Township 29 North Range 25 East and Township 28 North Ranges 23 and 24 East, Ottawa County, Oklahoma. The APE is depicted on the map in Attachment A of this Agreement.

B. Revisions to Geographical Scope. At the time of the annual meeting called for in stipulation XIII, an agency may propose revisions to the geographical scope of this Agreement to facilitate the cleanup. The signatories shall consult regarding the proposed revision, its benefit to facilitate undertakings, and the consequences of such revision for historic preservation considerations. The geographical scope of this Agreement may be revised after such consultation, consultation with consulting tribes, and the prior written concurrence of the signatory tribes, SHPO, OAS, and ACHP, and the agencies.

C. Scope of Undertakings. The purpose of this Agreement is to facilitate Section 106 compliance for hazard mitigation and environmental remediation undertakings in the Picher Field/Tar Creek project area to benefit public health and environmental safety. Therefore, a signatory agency may not use this Agreement to comply with Section 106 for undertakings that have other purposes, even if they occur within the cited geographical scope.

II. EXECUTION AND APPLICABILITY OF THIS AGREEMENT

A. This Agreement may be signed in counterparts with the same effect as if the signature

on each such counterpart were upon the same instrument.

B. This Agreement will go into effect when the ACHP has signed it and has received (via facsimile or mail) from the SHPO, OAS, the Quapaw Tribe, and at least one of the Federal agencies, a copy of the Agreement with their signature on their respective signature pages.

C. Once the Agreement has gone into effect, it will apply to those agencies that have submitted to the ACHP (via facsimile or mail) a copy of the Agreement with their signature on their respective signature pages. Each such agency shall be bound by the terms of the Agreement regardless of the actions or omissions of the other agencies.

D. Each agency is responsible for its own compliance with the terms of this Agreement. Nothing in this Agreement shall be construed to impute liability on any agency for the actions of any other agency.

III. CERTAIN ENVIRONMENTAL REMEDIATION ACTIVITIES WITHOUT FURTHER REVIEW

A. List of Exempt Undertakings

The agencies that have signed this Agreement may proceed with the following environmental remediation activities immediately and without any further Section 106 review, subject to stipulations VII and XV:

1. Filling and closing mine shaft openings. (It is agreed by all parties that mine shaft openings will be filled and closed regardless of any historical significance that they may or may not have.)
2. Removing and replacing or redistributing soil within the core area delineated in Attachment B.
3. Approving the sale and removal or redistribution, processing or washing of mine waste (chat), and any subsequent removal or distribution of said mine waste (chat). (It is agreed by all parties that mine waste (chat) will be removed, sold, redistributed, processed, washed, and/or any other remediation action regardless of any historical significance that such mine waste (chat) may or may not have.)
4. Removing or redistributing concrete footings and foundations.
5. Filling tailings ponds with mine waste (chat) or concrete debris.
6. Removing concrete, metal, wood, or other debris.
7. Paving or repaving gravel or chat roads, including removal of existing road surfaces and repaving them and the study of maximum chat utilization in asphalt through the establishment, maintenance, and evaluation of a pavement test road.
8. Cleanup, habitat restoration, or other work near or along streams within core area delineated in Attachment B.
9. Granting of Temporary Operating Permits or other permits and leases by the BIA for exempt remediation activities, including but not limited to mine shaft closure and mine waste (chat) removals or redistributions, on trust or restricted

Indian lands.

10. Monitoring of remediation and restoration through collection and analysis of environmental data to document changes brought about by remediation and restoration activities.

11. Passive treatment systems for treatment of mine seep.

Notwithstanding any other provision of this Agreement, the parties hereto agree that mine waste (chat), contaminated soil and water, and open mine shafts present real or potential hazards to human health and the environment. Indeed, the goal of the Environmental Protection Agency's Administrative Order on Consent (December 2003), draft Remedial Investigation/Feasibility Study, and other activities associated with Operable Unit 4 set forth a plan and agreement to remove mine waste (chat) piles and close mine shaft openings. The use of motorized heavy equipment is understood as essential in the conduct of these activities.

B. Revisions of List of Exempt Undertakings.

At the time of the annual meeting called for in stipulation XIII, an agency may propose a revision to the list of exempt activities in stipulation III.A. to facilitate the cleanup. The signatories shall consult regarding the proposed revision, its benefit to facilitate undertakings, and the consequences of such revision for historic preservation considerations. Revision to this list may be made after consultation among the signatories at an annual meeting, consultation with consulting tribes, and with the prior written concurrence of the SHPO, OAS, ACHP, and signatory tribes.

IV. Non-Exempt Undertakings.

Agencies shall consult in accordance with subpart B of 36 CFR Part 800 regarding 1) undertakings that may affect buildings and standing structures and 2) activities that are not exempt (see stipulation III.A., or as may be revised).

V. LEAD AGENCY

The Army Corps shall be the designated lead agency and shall facilitate compliance with this Agreement.

VI. PICHER FIELD/TAR CREEK NATIONAL REGISTER EVALUATION

A. PICHER FIELD/TAR CREEK HERITAGE STUDY.

The Corps, on behalf of the agencies, shall carry out the necessary historical and field research for, and prepare the, the Picher Field/Tar Creek Heritage Study (Heritage Study). The Cultural Resources Technical Team (CRTT) described in stipulation XIII shall develop and submit the draft scope of work for the Heritage Study to the SHPO, the tribes, OAS, and ACHP for review and comment. These parties shall be afforded 30 days for this review and comment. The CRTT shall revise the scope of work to address the comments received. Described in more detail in Attachment C to this Agreement, the Heritage Study shall provide an overview of the APE with particular emphasis on delineated historical theme and sub-themes; describe historic property types with integrity guidelines; discuss the history of the area in terms of the National Register evaluation criteria; identify persons who would be good candidates for oral history

interviews; identify, evaluate, and propose historic properties worthy of possible preservation; and identify, evaluate, and propose historic properties worthy of field recordation. Additionally, the Study shall describe the history and resources of the Catholic 40.

B. The Corps, on behalf of the agencies, shall prepare a draft version of the Heritage Study, which shall be reviewed by the CRTT. When acceptable to the CRTT, and within 210 days of this Agreement coming into effect, the Corps, on behalf of the agencies, shall provide the draft version of the Heritage Study for review and comment by the SHPO, tribe, and ACHP. The study shall be revised and finalized by the Corps and CRTT, on behalf of the agencies, to address the comments received. All signatories to this Agreement shall be provided a copy of the final Heritage Study.

C. The Corps, on behalf of the agencies, and in consultation with the tribes, OAS, and SHPO, shall determine the National Register eligibility of the Picher Field/Tar Creek project area, based on the Study. Should there be disagreement on National Register eligibility, the Corps, on behalf of the other agencies, shall request a determination of eligibility from the Keeper of the National Register, whose determination shall be considered final.

VII. ARCHAEOLOGY

A. Archaeological sites are not anticipated to be found in the core Tar Creek/Picher Field area because of the extensive land modification associated with past mining. Outside this core area, there is potential for archaeological sites to be found. Each agency that proposes undertakings not on the exempt list (stipulation III.A.) or outside the APE shall comply with subpart B of 36 CFR Part 800 for those undertakings. The agencies shall comply with the Archeological Resources Protection Act (ARPA) (P.L. 96-95; 93 Stat. 721; 16 U.S.C. 470aa et seq.), applicable regulations, and archaeological laws and regulations of the State of Oklahoma, as applicable.

B. Regarding the procurement of clean fill from outside the core area, for maximum efficiency, it is recommended through the process in subpart B of 36 CFR Part 800 that agencies share established borrow areas to the extent possible. Once a borrow area has been determined to not contain historic properties, continued vertical excavation of that area for borrow will not require further Section 106 consideration regarding effects to archaeological sites.

VIII. CATHOLIC 40.

The signatories to this document conducting environmental remediation activities affecting historic properties on the Catholic 40 shall develop environmental remediation plans that will not disturb existing structures and that will have the least possible effects on the historic properties on the Catholic 40. The environmental remediation plans affecting historic properties on the Catholic 40 shall include archaeological treatment and discovery provisions to address those historical remains that may be affected and should include the advisement from the Quapaw Tribe and comments of the SHPO. The treatment and discovery provisions and manner of implementation shall meet *the Secretary of the Interior's Standards for Archeological Documentation*.

IX. GENERAL EFFORTS

It is recognized that the remediation of the Picher Field/Tar Creek area is essential, but will adversely affect historic properties within the Picher Field/Tar Creek area. To the extent possible, the agencies shall make reasonable and good-faith efforts to encourage the preservation and interpretation of historic properties and the history of the Picher Field/Tar Creek area for economic and educational benefit of the public. The agencies are encouraged to assist in preserving the historical (archival) records of the Picher Field/Tar Creek area and making them accessible to the researchers and the general public; encouraging the preservation of significant historic properties not affected by remediation (subject to willing property owners); and other measures.

X. POST-REMEDATION RECLAMATION.

The agencies shall seek and take full advantage of opportunities to preserve historic properties and interpret them to the public as they contribute to the development of long-range land use plans and as they develop post-remediation reclamation activities in the Picher Field/Tar Creek project area. This may include encouraging heritage tourism to the Picher Field/Tar Creek area, and/or accepting or otherwise facilitating from willing property owners conservation easements, donations, or purchases of historic properties, or other actions. Revegetating areas with native grasses is of particular interest to the tribes. The agencies shall consult with the tribes regarding post-remediation reclamation activities that may affect historic properties of religious and cultural significance to them.

XI. PROFESSIONAL QUALIFICATIONS

All historic preservation-related activities called for in this Agreement shall be carried out by persons meeting the pertinent professional qualifications of the Secretary of the Interior's (SOI) *Professional Qualification Standards* (36 CFR Part 61) in a discipline appropriate for the task and the involved historic properties. The agencies acknowledge that tribes possess special knowledge and expertise related to historic properties of religious and cultural significance to them. It is understood that professional qualification standards do not apply to tribal traditional practitioners and authorities for purposes of this Agreement.

XII. PROFESSIONAL STANDARDS

All historic preservation work carried out pursuant to this Agreement shall meet the *Secretary of the Interior's Standards for Historic Preservation Projects*, including but not limited to Standards for Preservation, Rehabilitation, Archeological Documentation, Identification of Historic Properties, and Preservation Planning. Additionally, historic preservation work must meet the requirements of the SHPO and OAS.

XIII. CULTURAL RESOURCES TECHNICAL TEAM

Qualified cultural resource professionals of the agencies (Army Corps and BIA) and the tribes shall constitute the Tar Creek/Picher Field Cultural Resources Technical Team (CRTT). The CRTT shall provide technical assistance in implementing this Agreement, including but not limited to advising agencies as to whether undertakings fall under the list of exempted activities in stipulation III.A. Also, one or more members of the CRTT shall participate in the monthly agency project coordination meetings to provide input on historic preservation implications of proposed undertakings.

XIV. ANNUAL HISTORIC PRESERVATION COORDINATION MEETING AND ANNUAL REPORT

A. ANNUAL MEETING. In October 2005 and annually thereafter, the signatories to this Agreement shall meet to discuss progress in implementing the Agreement, projects (exempt and non-exempt) planned for the coming year, possible effects of such projects on historic properties, problems and successes in implementing the Agreement, and whether amendments to Agreement, its scope, list of exempted activities, or components are necessary. The Army Corps, on behalf of the agencies, shall organize these annual meetings.

B. ANNUAL REPORT. At least 30 days prior to the annual meeting, the Corps, with the cooperation of the agencies, shall prepare and submit to the SHPO, OAS, signatory tribes, and ACHP a report that describes the following: the undertakings of the past year (exempt and non-exempt); undertakings (exempt and non-exempt) anticipated for the coming year(s); possible effects of these undertakings on historic properties; the agencies' progress in implementing this Agreement; and actions that the agencies plan to take to implement the Agreement during the coming year. The report also shall identify problems and successes in carrying out the Agreement and proposed amendments to the Agreement, if any.

XV. INADVERTENT DISCOVERY

If historic properties (including pre-contact or pre-mining archaeological remains or burials or human remains) are found during conduct of project activities or if there are unanticipated effects on historic properties, the agency shall ensure that all activity in the minimum practicable immediate area necessary to protect the discovery is ceased, ensure the discovery is secured, and shall notify the SHPO, OAS, and the tribes within 48 hours of discovery. The notification shall describe the agency's assessment of National Register eligibility of the property and proposed actions to resolve the adverse effects. The SHPO, OAS, and tribes shall respond within 48 hours of the notification. The agency official shall take into account their recommendations regarding National Register eligibility and proposed actions, as it carries out appropriate actions to resolve the adverse effects. Failure to respond within 48 hours will be deemed as agreement with the agency's assessment and proposed actions. The agency shall provide to the SHPO, OAS, and the tribes a report of the actions to resolve the adverse effect when they are completed. Notification under this stipulation shall occur pursuant to a supplemental protocol to be prepared by all of the parties as soon as possible after the Agreement is signed.

A. If historic properties are discovered on Indian lands (tribal trust or individual restricted allotment), or there are unanticipated effects on historic properties found on such Indian lands, the agency shall comply with applicable tribal regulations and procedures, to the extent that such regulations and procedures are not inconsistent with applicable Federal law, and obtain the concurrence of the tribe with jurisdiction over the land, provided that seeking said consent is not inconsistent with applicable Federal law, on the proposed action. In addition, for a discovery on Indian or Federal lands, the agency shall comply with the Native American Graves Protection and Repatriation Act (NAGPRA [P.L. 101-601; 104 Stat. 3048; 25 U.S.C. Section 3001-13]) and its applicable regulations, the Archeological Resources Protection Act and its applicable regulations, and any other applicable tribal, federal, or state law.

B. For discoveries on non-Indian, non-Federal lands or State lands, applicable laws and regulations of the State of Oklahoma statutes shall be complied with. Such laws may include 21 O.S. Section 1168.4 (Duty to Report Discovered Remains); 21 O.S. Section 1167 (Punishment for Destruction or Removal of Tomb, Gravestone or other Cemetery Ornament); and, 21 O.S. Section 1168.7 (Government Agencies Discovery of Remains), or other applicable Federal or State law.

XVI. EMERGENCIES

Immediate rescue and salvage operations in response to an immediate threat to life or property, disaster, or other emergency formally declared by an agency official, a tribal government, the Governor of the state of Oklahoma, or the President are exempt from the provisions of Section 106. For such undertakings that will be implemented within 30 days after the threat, disaster, or an emergency is declared, the agency shall notify the ACHP, SHPO, and the tribes as soon as possible and afford them an opportunity to comment within five days of notification and take into account such timely comments prior to proceeding. If the agency determines that circumstances do not permit five days for comment, the agency shall notify these parties and invite any comments within the time available. An agency may request an extension of the period of applicability from the ACHP prior to the expiration of the 30 days.

XVII. DISPUTE RESOLUTION

Should any signatory or concurring party to this Agreement object at any time to any actions proposed or the manner in which the terms of this Agreement are implemented, the objector is encouraged to consult the other signatories, particularly the CRTT, SHPO, OAS, and signatory tribes, in resolving the objection. If that objector determines that such objection cannot be resolved, the relevant agency shall:

- A. Forward all documentation relevant to the dispute, including proposed resolution, to the ACHP. The ACHP shall provide the agency with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the agency shall prepare a written response that takes into account advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. The agency will then proceed according to its final decision.
- B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, the agency may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, the agency shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the Agreement, and provide them and the ACHP with a copy of such written response.
- C. The responsibility of the other agencies to carry out all other actions subject to the terms of this Agreement that are not the subject of the dispute remains unchanged.
- D. It is understood that this dispute resolution stipulation is intended to address issues of historic preservation and implementation of this Agreement, and not

matters pertaining to technical issues of public health and safety and environmental remediation.

XVIII. ADDITIONAL SIGNATORIES

Additional parties may become signatories to this Agreement in the future through an amendment to the Agreement per stipulation XX.B.

XIX. ANTI-DEFICIENCY ACT

It is understood that the implementation of this Agreement is subject to applicable Federal and State anti-deficiency statutes.

XX. DURATION, AMENDMENT, WITHDRAWAL, AND TERMINATION

A. DURATION. Unless terminated or amended as outlined below, this Agreement shall remain in effect for a period of 5 years from the date that the Agreement goes into effect and may be extended for additional five-year terms with the written concurrence of all of the signatories.

B. AMENDMENT. If any signatory to the Agreement determines that the Agreement cannot be fulfilled or that modification of the Agreement is warranted, that signatory shall consult with the other signatories to seek amendment of the Agreement. The Agreement may be amended after consultation among the signatories and all signatories agree in writing with such amendment.

C. WITHDRAWAL. Any agency may withdraw its involvement in this Agreement by providing 30 days written notice to the other parties, provided that the parties will consult during this period to seek amendments or other actions that would prevent withdrawal. Withdrawal of involvement in this Agreement by an agency will require that agency to comply with the process in subpart B of 36 CFR Part 800 for its undertakings. Should any signatory withdraw its involvement in this Agreement, the Agreement shall remain in effect for the other remaining signatories, provided the SHPO, OAS, Quapaw Tribe, ACHP, and at least one Federal agency remain as signatories.

D. TERMINATION. This Agreement will be fully terminated if any signatory provides notice of termination and after 90 days or more of unsuccessful consultations to amend the Agreement. This Agreement may also be terminated by the implementation of a subsequent Programmatic Agreement under 36 CFR Part 800 that explicitly supersedes this Agreement.

Execution of this Agreement and implementation of its terms evidence that the Federal agencies that have signed it have taken into account the effects of their undertakings on historic properties and have afforded the ACHP an opportunity to comment.

SIGNATORY PAGES (PAGE 1 OF 9)

ADVISORY COUNCIL ON HISTORIC PRESERVATION

BY: John M. Fowler Date 2/24/05

Print/Type Name: JOHN M. FOWLER

Print/Type Title: EXECUTIVE DIRECTOR

SIGNATORY PAGES (PAGE 2 OF 9)

OKLAHOMA STATE HISTORIC PRESERVATION OFFICER

BY: Melvena Heisch Date _____

Print/Type Name: MELVENA HEISCH

Print/Type Title: DEPUTY STATE HISTORIC PRESERVATION OFFICER

SIGNATORY PAGES (PAGE 3 OF 9)

OKLAHOMA ARCHAEOLOGICAL SURVEY

BY:  Date Feb 25 2005

Print/Type Name: Robert L. Brooks

Print/Type Title: State Archaeologist

SIGNATORY PAGES (PAGE 4 OF 9)

QUAPAW TRIBE OF OKLAHOMA (O-Gah-Pah)

BY: John L. Berrey Date 2/24/05
Honorable John L. Berrey, Chairman, Tribal Business Committee

Print/Type Name: JOHN L. BERREY
Print/Type Title: Chairman, Quapaw Tribal Business Committee

SIGNATORY PAGES (PAGE 5 OF 9)

U.S. ARMY CORPS OF ENGINEERS, TULSA DISTRICT

BY: Miroslav P. Kurka Date 25 FEB 05

Print/Type Name: COL Miroslav P. Kurka

Print/Type Title: Commander/District Engineer

SIGNATORY PAGES (PAGE 6 OF 9)

ENVIRONMENTAL PROTECTION AGENCY

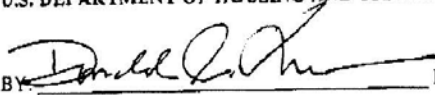
BY: Sam Coleman Date 2/23/05

Print/Type Name: Samuel Coleman

Print/Type Title: Director, Superfund Division

SIGNATORY PAGES (PAGE 7 OF 9)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

BY:  Date 2/25/05Print/Type Name: Donald P. MarksPrint/Type Title: Deputy Assistant Secretary for Economic Development

SIGNATORY PAGES (PAGE 8 OF 9)

BUREAU OF INDIAN AFFAIRS


BY:  Date 2/24/05

Print/Type Name: MICHAEL D. OSEAL

Print/Type Title: ACTING PRINCIPAL DEPUTY ASSISTANT SECRETARY -
INDIAN AFFAIRS

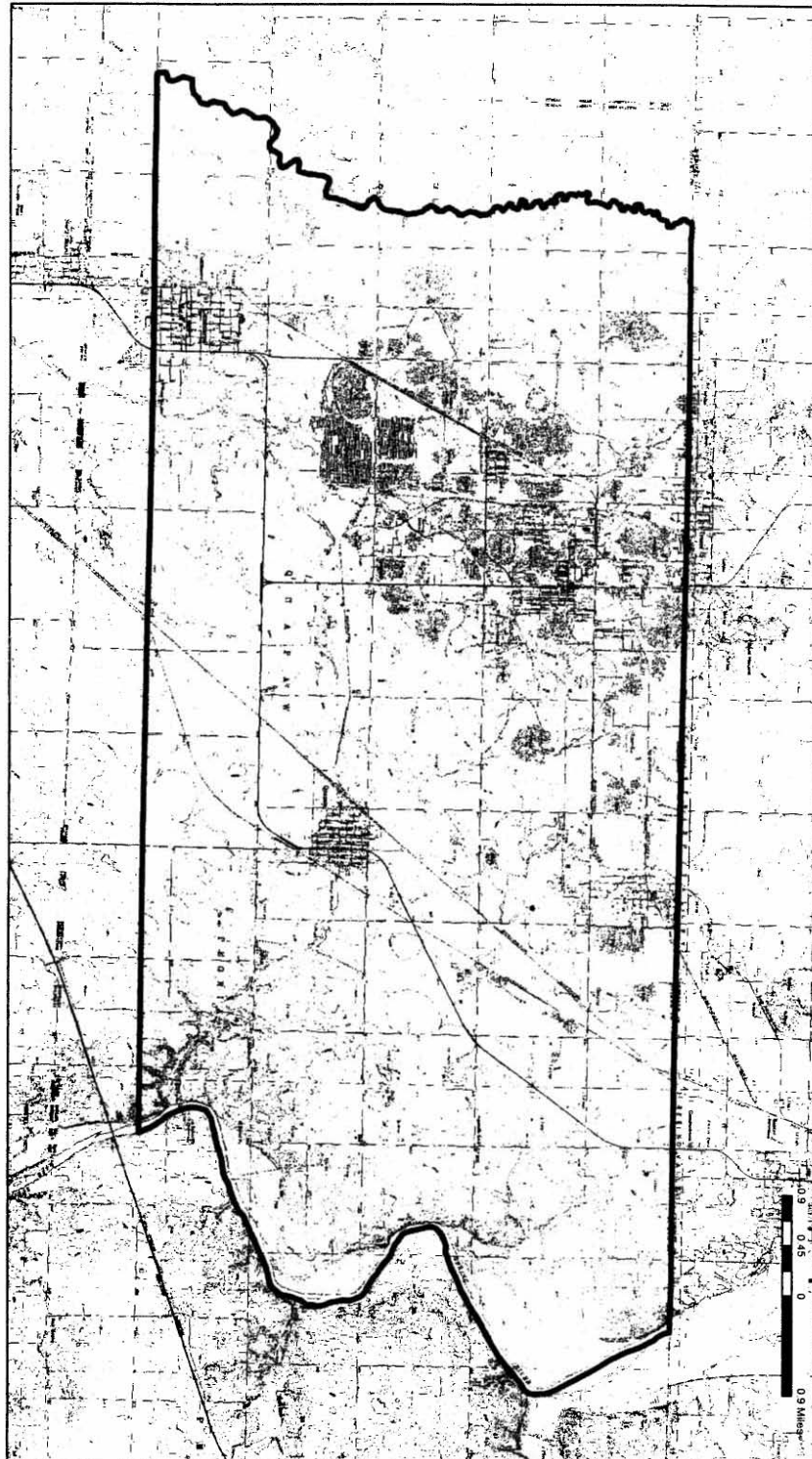
SIGNATORY PAGES (PAGE 9 OF 9)

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

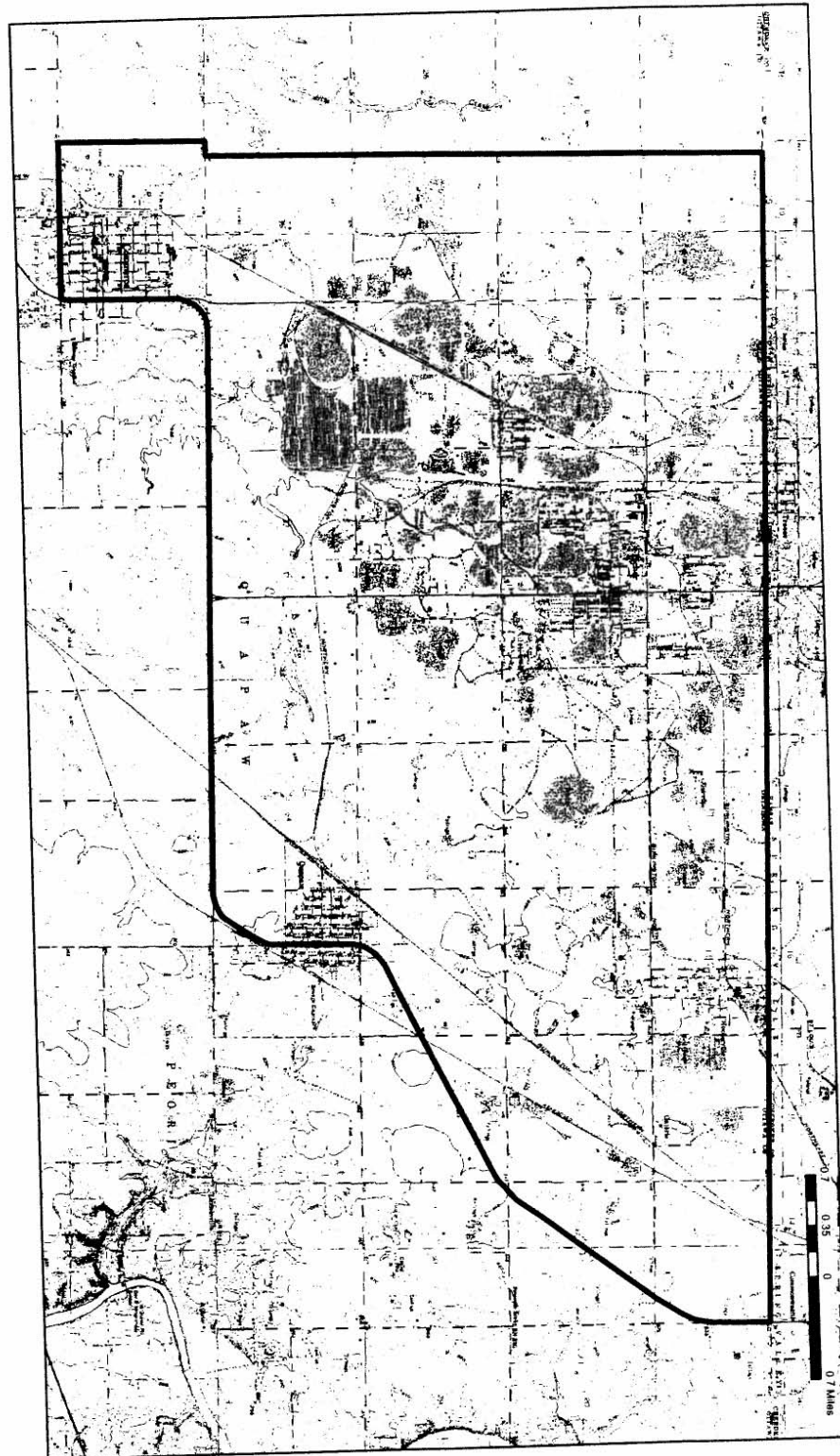
BY:  Date 2/28/05

Print/Type Name: Craig Kinnaman

Print/Type Title: Deputy Executive Director



PA Regarding the Tar Creek/Picher Field Mine Cleanup Project
Attachment A
Map of Picher Field/Tar Creek Project Area
Area of Potential Effects



PA Regarding the Tar Creek/Picher Field Mine Cleanup Project
 Attachment B
 Core Area Map

Attachment C

Picher Field/Tar Creek Heritage Study

The Picher Field/Tar Creek Heritage Study shall consist of an overview of the history of the Picher Field/Tar Creek project area from prehistoric times to the present, giving considerable emphasis and attention to the theme of the area's history of lead and zinc mining and processing and the related historical subthemes of 1) the history of the Quapaw Tribe's and other tribes' relationships to the Picher Field/Tar Creek project area including the mining; 2) change in mining/processing practices and facilities within the Picher Field/Tar Creek project area; and 3) the growth of towns and communities in the Picher Field/Tar Creek area. The Study will discuss the significance of area's historical themes and subthemes in terms of the National Register of Historic Places eligibility evaluation criteria. In addition, the Heritage Study shall describe property types and their relationship to the historical themes and subthemes and shall provide guidelines to be used in determining the integrity of the historic property types for use in National Register eligibility evaluations.

In a separate appendix, the Heritage Study shall provide 1) a list of at least 30-40 persons knowledgeable of or associated with the history of the Picher Field/Tar Creek area that are recommended for future video/oral interviews, based on consultation with the CRTT, Picher Museum, Ottawa County Museum, Quapaw Tribe, and other local tribes; 2) a list of properties worthy of preservation with ownership information, discussion of historical significance of property, and discussion of recommended preservation; 3) a list of properties recommended for limited field recordation with ownership information, discussion of historical significance of property, and description of recommended recordation; 4) further historical research of the Catholic 40 and preparation of a map to scale showing historic buildings, historical archaeological remains, and historic use areas in relation to areas in need of remediation based on historic maps, informant information, historic photos, and other information (see stipulation VIII of the Agreement); and 5) annotated bibliography of written and audio-visual materials and other sources about the history, mining, and cleanup of the Picher Field/Tar Creek area including information about location and availability of these sources.

APPENDIX D
AMERICAN BURYING BEETLE PROTOCOL

Best Management Practices to Avoid Take of the American Burying Beetle

The following description of construction Best Management Practices (BMPs) for minimizing adverse effects to the ABB is included in the proposed action:

1. The project site is in a county where the ABB is known or reasonably likely to occur, the Oklahoma Department of Environmental Quality (DEQ) in coordination with the Lead Impacted Communities Relocation Trust (hereinafter referred to as the LICRA Trust) will evaluate the project area for ABB habitat. If the project site is confined to one or more of the following habitats, the LICRA Trust will conclude that the habitat is not suitable for the ABB and then submit their findings and determination to the U.S. Fish and Wildlife Service for concurrence.
 - Land that has already been developed and no longer exhibits surficial topsoil or leaf litter.
 - Land that is tilled on at least an annual basis.
 - Soil that is greater than 70 percent sand.
 - Soil that is greater than 70 percent clay.
 - Land where greater than 80 percent of the soil surface is comprised of rock.
 - Land where greater than 80 percent of the subsurface soil structure within the top 4 inches is comprised of rock.
 - Land that meets the Corps definition of wetland. (However, projects developed in this type of habitat will need to be reviewed by the U.S. Corps of Engineers to ensure compliance with section 404 of the Clean Water Act.)
2. Projects in areas that exhibit suitable habitat for the ABB, *i.e.*, do not exhibit the above characteristics, will be evaluated by the LICRA Trust for the presence/absence of the ABB in the immediate project area. This will be done by reviewing the Service's database of ABB surveys at: < <http://www.fws.gov/southwest/es/oklahoma/beetle1.htm> >.
3. If a nearby ABB survey (within a five-mile radius of the proposed construction site) is found that has been conducted within a year of the project construction date, the LICRA Trust will apply the survey results to the project site. If both positive and negative surveys are found to be applicable, positive surveys will always be applied over negative surveys.
4. If applicable survey results are negative for ABB occurrences, the LICRA Trust will submit their findings and determination to the Service for concurrence.
5. If applicable survey results are positive for the ABB, the LICRA Trust will proceed with the project as follows:

- Whenever possible, the LICRA Trust will postpone construction until the active season of the ABB, *i.e.*, between May 20 and September 20, when nighttime temperatures average above 60°F. The LICRA Trust will begin construction only after implementing the Service's current Baiting Away protocol or current Trapping and Relocating protocol whichever is determined more appropriate.
6. If there are no existing surveys applicable to the proposed construction site and the construction will occur during (or is postponed until) the active season of the ABB, the LICRA Trust will conduct an ABB survey of the project area.
 7. If an ABB survey of the project area is negative, the LICRA Trust will then submit their findings and determination to the Service for concurrence.
 8. If an ABB survey of the project area is positive, the Service's current Baiting Away protocol or current Trapping and Relocating protocol will be utilized prior to proceeding with the project. The LICRA Trust will then submit their findings and determination to the Service for concurrence.

APPENDIX E
SECTION 404 INFORMATION AND CORRESPONDANCE



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101ST EAST AVENUE
TULSA, OKLAHOMA 74128-4609

April 6, 2007

Regulatory Office

RECEIVED

APR 10 2007

BL for LY

Ms. Heather Mallory
Land Protection Division
Oklahoma Department of Environmental Quality
707 North Robinson
P.O. Box 1677
Oklahoma City, OK 73101-1677

LAND PROTECTION DIVISION
DEPT OF ENVIRONMENTAL QUALITY

Dear Ms. Mallory:

This is in reference to your February 21, 2007, letter requesting information on wetlands and other "waters of the United States" relative to the authority of Section 404 of the Clean Water Act (CWA).

The request pertains to proposed buy-out related activities including the demolition of structures (homes and businesses) and associated utility and road relocations to address public safety issues related to subsidence risks in the Tar Creek Superfund site. The Tar Creek Superfund site includes Tar Creek, Lytle Creek, and associated unnamed tributaries, which flow to the Grand Neosho River, a navigable water in its lower reaches. Additionally, there are adjacent wetlands associated with these stream channels. These streams and wetlands are considered part of "waters of the United States" subject to Section 404 of the Clean Water Act.

In supplemental information submitted, it was clarified that Best Management Practices will be implemented at any demolition site near wetlands or waterbodies to contain the demolition activity to the site to prevent incidental impacts to any adjacent waters. This would include perimeter controls such as hay bale barriers or silt/sediment fencing, proper grading and reseeding following disturbance, and general good housekeeping practices on site. Furthermore, all demolition debris and materials will be disposed of in a manner consistent with State of Oklahoma regulations. All debris will go to a licensed sanitary landfill. No demolition debris would be disposed of within wetlands or other aquatic areas.

With regard to road relocations, the only relocations anticipated at this time are closures and rerouting on existing roads in the vicinity of the demolished structures. The proposed utility relocations only pertain to reconfiguring utility

routings and facilities in the vicinity of the structures to be demolished. There are no anticipated relocations of roads or utilities that would cross wetlands or other waters of the United States and require the construction of culverted crossings or bridges. Such construction would likely require authorization under Section 404 CWA.

Based on our review of the information you have provided this office for review, the demolition of structures and disposal of demolition waste will not occur in wetlands or other waters and therefore, would not require authorization under Section 404 CWA.

If the scope of related activities change such that new road construction across a waterbody is required or other actions not addressed in this letter which would impact upon wetlands or other waters, please coordinate project-specific information with this office for an assessment of the need for authorization under Section 404 CWA.

This action has been assigned Regulatory Identification No. 2007-138. Please reference this number in any future correspondence. If you have any questions, please feel free to contact Mr. Andrew Commer at 918-669-7616.

Sincerely,



David A. Manning
Chief, Regulatory Office